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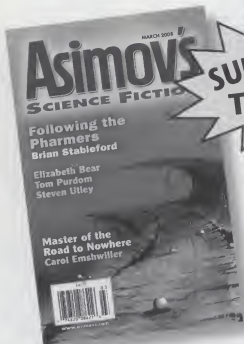
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SCIENCE FICTION

AUGUST 2010

Vol. 34 No. 8 (Whole Number 415)

Next Issue on Sale July 27, 2010

Cover Art by Michael Whelan

NOVELETTES

- 32 CRIMES, FOLLIES, MISFORTUNES, AND LOVE IAN CREASEY
56 WARNING LABEL ALEXANDER JABLOKOV
90 SLOW BOAT GREGORY NORMAN BOSSERT

SHORT STORIES

- 14 SUPERLUMINOSITY ALAN WALL
24 THE LOVELY UGLY CAROL EMSHWILLER
46 THE BATTLE OF LITTLE BIG SCIENCE PAMELA RENTZ
71 THE WITCH, THE TINMAN, THE FLIES J.M. SIDOROVA
80 ON THE HORIZON NICK WOLVEN

POETRY

- 23 CULTURAL BOUNDARIES F.J. BERGMANN
45 A WRONG TURN ELIZABETH PENROSE
55 THE GREAT PEEL OFF QADIRA P. GARGER

DEPARTMENTS

- 4 EDITORIAL: THE 2010 DELL MAGAZINES
AWARDS SHEILA WILLIAMS
8 REFLECTIONS: BRAVE NEW WORDS ROBERT SILVERBERG
11 ON THE NET: BRAVE NEW WORLDS JAMES PATRICK KELLY
79 NEXT ISSUE
107 ON BOOKS PETER HECK
112 THE SF CONVENTIONAL CALENDAR ERWIN S. STRAUSS

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THE 2010 DELL MAGAZINES AWARD

I left New York City in mid-March on a beautiful springlike morning with temperatures in the seventies. Fortunately, it was an equally lovely afternoon when I arrived in Orlando, Florida. As usual, I was attending the International Conference on the Fantastic in the Arts where I would bestow the Dell Magazine Award for Undergraduate Excellence in Science Fiction and Fantasy Writing on a lucky winner. The award, which includes a five hundred dollar first prize, is co-sponsored by Dell Magazines and the International Association for the Fantastic and is supported by the School of Mass Communications, University of South Florida.

My co-judge, Rick Wilber, and I choose the finalists from a blind read of the stories submitted to the contest. I was greatly relieved that we have this procedure in place when I discovered that this year's winner, Rachel Sobel—a junior at the University of Washington (Seattle)—was a student I'd met last summer at the Alpha Science Fiction, Fantasy, and Horror Workshop for Young Writers that takes place each July in Pittsburgh, Pennsylvania. Rachel is tiny, vivacious, and smart. Her talent shone through at the workshop and it shone through again in her beautiful story about "The Dead Star, the Satirist, and the Soldier." This painful story about the aftermath of a lost cause will appear on our website next year. Last year's award-winning story, "We Were Real," by Josh Eure should be up on our site soon. Look for it at asimovs.com.

Miah Saunders, a sophomore at High Point University in North Carolina, was this year's first runner-up. Having just turned twenty, Miah was disappointed to learn that she was ineligible to attend the Alpha workshop, but "Lilith," her

compelling story about artificial intelligence, was a strong indication that she would be an excellent candidate for Clarion, Clarion West, or the Odyssey writers workshops.

It turned out, though, that most of our other finalists were veterans of the illustrious Alpha. The workshop's alum included our second runner-up, Rebecca McNulty, a sophomore from The College of New Jersey and author of the evocative "Sister's Hands." Rebecca also received an honorable mention for her moving tale about "Scales for Ivan."

Our third runner-up was Rachel Halpern, the author of the amusing "Lucky Stiff" and another alum of the workshop. In addition to having a bevy of Alpha students, we seemed to have a run on college sophomores. Rachel was a sophomore at Grinnell College in Grinnell, Iowa. Since the Rachels and Rebecca were all very good friends, I found myself tripping up over their names. Rachel Halpern tried to help me out by referring to herself as the "evil Rachel," but since both she and Rachel Sobel seemed like "good Rachels" to me, I was hopelessly baffled all weekend and mostly called them both Rebecca.

Fortunately, the name of the final Alpha alum did not start with an "R." Another sophomore, Lara Donnelly of Wright State University in Dayton, Ohio, who received an honorable mention in last year's contest, put in a repeat performance this year with her chilling "Family Ties." Lara, who had been studying abroad, flew in from Cork, Ireland, for the conference. Much to her delight, she discovered her good friend and Wright State University junior, Anthony Powers was also in Florida receiving an honorable mention for his enigmatic story, "Left." Alas, one of



Photo credit: Liza Green Trombs/Locus Publications

Left to right: Rick Wilber, Rachel Halpern, Rachel Sobel, Rebecca McNulty, Anthony Powers, Lara Donnelly, Miah Saunders, and Sheila Williams.

our honorable mentions, Eugenia Lily Yu of Princeton University, could not be on hand to receive her award for "An Aureate Earth."

As usual, the students were warmly welcomed by a number of leading authors. They met conference guest of honor Nalo Hopkinson and rising star N.K. Jemison. They also had a chance to spend time with Marie Brennan, Suzy McKee Charnas, Ted Chiang, Stephen R. Donaldson, Andy Duncan, Kathleen Ann Goonan, Kij Johnson, Joe Haldeman, James Patrick Kelly, John Kessel, Patricia McKillip, Sandra McDonald, Kit Reed, Peter Straub, and many other writers.

We are actively on the lookout for next year's winner. The deadline for submissions is Tuesday, January 4, 2011. All full-time undergraduate students at any accredited university or college are eligible. Stories must be in English, and should run from one thousand to ten thousand words. No submission can be

returned, and all stories must be previously unpublished and unsold.

There is a \$5 entry fee per story and a special flat fee of \$15 is available for an entire classroom of writers. Instructors should send all the submissions in one or more clearly labeled envelopes with a check or money order. Checks should be made out to the Dell Magazines Award/RWilber. There is no limit to the number of submissions from each writer. Each submission must include the writer's name, address, phone number, and college or university on the cover sheet, but please do not put your name on the actual story.

You can also submit your story at our award website: www.dellaward.com and send your entry fee by separate mail, or you can mail the story to the address below along with your submission fee, or you can send the story as an attachment to RWilber@usfedu and mail the entry fee separately. You can visit with previous finalists and current writers at our Face-

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book site. Search for the **Dell Magazines Award** or go directly to <http://www.facebook.com/pages/manage/#!/pages/Dell-Magazines-Award/177319923776>

The judges reserve the right to double-check your university status. For this year's contest, you must have been a full-time undergraduate during the fall 2009; spring 2010; summer 2010; or fall 2010 semesters (or quarters) of your university or college.

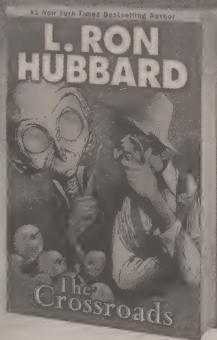
Story submissions should have been written during your time as a student. However, if you attended college full-time during a qualifying semester and then graduated, went to part-time status, or quit entirely for a time, you are still eligible. In general, the winner of the Dell award will be the story that best meets the expectations of the judges. Those stories typically are "character oriented"; i.e., the characters, rather than the science, provide the main focus for the reader's interest. Serious, thoughtful, yet accessible fiction will have the best chance of success. The judges do enjoy humorous stories, but pun endings have little chance of success, and the judges are not interested in sword & sorcery, elves, trolls, or dragons. They are not interested in explicit sex or violence, either. Generally, bear in mind that all fiction is written to examine or illuminate some aspect of human existence, but that in science fiction the backdrop against which events occur is the size of the universe.

Before entering the contest, contact Rick Wilber for more information, rules, and manuscript guidelines. He can be reached care of:

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BRAVE NEW WORDS

Science fiction has its own specialized vocabulary, words that are immediately understandable to initiated readers but largely incomprehensible to the world in general—words like hyperspace, teleportation, telekinesis, esper, solarian, terraforming. The subculture known as science fiction fandom has a special esoteric jargon too, and its words are so cryptic that only a fraction of the main science fiction audience would understand them—corflu, filk-song, Hugo, gafia, GoH, and many more.

But it occurred to me the other day that a good many sciencefictional words, and even some of the fannish ones, have escaped from our microcosm and established themselves as standard terms in modern English. I mean words like “robot” and “alien” and “fanzine.” So I betook myself to that estimable reference volume, *Brave New Words*, otherwise known as the Oxford Dictionary of Science Fiction, to see just how many escapees there are. (*Brave New Words*, edited by Jeff Prucher and published in 2007 by the Oxford University Press, became self-referential a year later when it won a Hugo for best non-fiction work. Page 93 defines the Hugo as “any of several awards presented annually at the World Science Fiction Convention . . . for excellence in science fiction or fantasy writing, art, publishing, etc.”) From it I drew these examples:

Robot. Everybody knows what a robot is: a big clunking metal machine, usually, but not always, anthropomorphic in shape, that does the jobs humans don’t want to do. Robots perform dangerous tasks inside atomic power plants. Assembly lines in factories use robot arms to put things together. People who speak in dull, monotonous, mechanical tones are described as “robotic.” The word is part of the common language. But it comes

straight out of science fiction: Karel Capek’s 1923 play, *R.U.R.*—the initials stand for “Rossum’s Universal Robots”—which is about the advent of quasiintelligent mechanical laborers. Capek didn’t have to reach very far to invent a name for his machines. It came from his native language, Czech, where it means “work,” usually with the implication of hard, boring work. It is found in other Slavic languages, too, which provided a strange experience for me last year when I visited Poland and, on my first day, found a sign posted on the wall outside my hotel that said, *UWAGA! ROBOTY BUDOWLANE!* I had learned already that “uwaga!” meant “danger!” Were we being warned against berserk robots in the vicinity? Not quite. A Polish friend provided the prosaic translation: “Danger! Construction work!”

From *robot* we move smoothly to *android*, a word that in its SF usage generally is intended to mean a kind of artificial human that more closely resembles the real thing than a robot does: not a metal creature but one made of synthetic flesh. It, too, is widely used in standard English these days. *Brave New Words* tells us that it was in use centuries ago to describe artificial beings supposedly manufactured by alchemists, so perhaps we ought not to credit its coinage to science fiction writers, though they were the ones who popularized its usage, beginning in the 1930s. But its variant, *droid*, even more widely used nowadays, unquestionably comes straight out of SF—from George Lucas’s movie *Star Wars*, which gave us the beloved and not at all human-shaped droid R2D2, among others. Science fiction movies and television shows have much greater audiences than even the most popular SF novel, which is why their coinages pass so readily into the language. *Beam me up, Scotty*—even the stodgy magazine

American Banker was using the phrase as far back as an issue of July 1984, according to *Brave New Words*, in its sense of "Get me out of here fast." It originated, of course, on *Star Trek*, as did many another phrase now in colloquial use.

The ease with which people use the expression "ET" to describe some strange creature that they have encountered is another example of the power of Hollywood science fiction to transform our language. I have heard the term used by real-world people, people who don't know Bradbury from Heinlein, when speaking of an odd-looking cat, a peculiar aquarium specimen, even a funny-looking baby. "ET," of course, is short for "extraterrestrial," which means "not of this earth." That word was once part of our private lingo, traceable back at least to a 1941 pulp story by C.M. Kornbluth. "ET," the abbreviation, turns up as far back as 1944 in a fan publication. But it was Stephen Spielberg who put it into the public vocabulary with his 1982 movie, *E.T.: the Extraterrestrial*, which showed umpty million filmgoers that a creature from another world could be charming, winsome, lovable...and extraterrestrial.

It was another film that gave us that dreadful term "outer space," so widely and unfortunately used today—1953's *It Came from Outer Space*. (Not a very distinguished movie, though it was adapted from a story by Ray Bradbury, and let us hope Bradbury had nothing to do with coining that silly locution. Where is "outer" space? How far out there do we have to go to reach it?) The movie did lead British novelist J.B. Priestley to urge writers, a year later, to devote themselves instead to the literary exploration of *inner* space, "the hidden life of the psyche," and "inner space," too, has passed into our language as the antithesis of the place where the dumb sci-fi movies are set.

Oh, *sci-fi*. Another hateful term that will never be eradicated from our language. It was coined, apparently, by analogy with "hi-fi," a twentieth-century term short for "high fidelity," referring to superior reproduction of musical sound. It's

reasonable enough to collapse "high fidelity" into "hi-fi," I suppose, and even "science" into "sci-," but abbreviating "fiction" as "fi" has always struck me as barbarous. I used to blame the old-time SF fan Forrest J Ackerman for setting "hi-fi" loose in our midst somewhere in the 1950s, but to my chagrin *Brave New Words* has found a 1949 citation for it in a letter from none other than Robert A. Heinlein, talking about his writing a "sci-fi" short story. Perhaps we don't owe "outer space" to Bradbury, but evidently Heinlein was using "sci-fi" long before Ackerman, and more's the pity. (Heinlein also provided us with *grok*, from his 1961 novel *Stranger in a Strange Land*, which everybody has used since the hippie era to mean "to understand" or "to be in tune with" or, well, "to dig," in the sixties sense of that verb. It doesn't belong to Heinlein any more. You see it everywhere from *TV Guide* to *People Magazine* to *The New York Times*.)

What about *science fiction* itself? It's a term that the whole world understands, but once upon a time it was exclusively ours, right? Well, not exactly. *Brave New Words* has found an 1851 essay talking about science fiction as a kind of fiction that offers "a knowledge of the Poetry of Science, clothed in a garb of the Poetry of Life." A little flowery, perhaps, but as good a definition as any I've heard, even though it does anticipate the founding of the first science fiction magazine, Hugo Gernsback's *Amazing Stories*, by seventy-five years. Gernsback himself can be seen in a 1927 issue of *Amazing* referring to Jules Verne as "a sort of Shakespeare in science fiction," but in fact he preferred to call the stuff he published "scientifiction," an ugly neologism formed by smoojing together "scientific" and "fiction." The term never caught on, unlike, alas, "sci-fi," which seems here to stay.

Astronomers use the term "gas giant" to speak of big, vaporous planets like Jupiter or Neptune, whose apparent great size results from having a vast quantity of gaseous material wrapped around a relatively small solid core. They probably aren't aware that James Blish

coined the term in 1952 in a science fiction story called "Solar Plexus." (The story wasn't one of Blish's best, but he was tremendously proud to see his coinage pass into the language of science.) The phrase "flash crowd" is often used nowadays to mean a rapidly assembled large group that is called together via cellphone or the Internet. Larry Niven invented it in 1973 in a story of just that name. (I remember it well. I published it in an anthology I was editing.)

If you regard George Orwell's 1984 as science fiction, and I am one of those who do, you must credit it with coining a whole array of words that are by now indispensable to any discussion of political life: *doublethink*, *thoughtcrime*, *Big Brother*, *unperson*, and many more—to which we must add the adjective *Orwellian*, honoring the author himself. They all come out of a 1948 book that took place thirty-six years in the future, and I think novels set in the future qualify as science fiction.

Science fiction also gave us *alien* (in the sense of a being from another world), *spacesuit*, *time machine*, *blastoff*, and a host of other words that seem like perfectly standard English today. A *fanzine* used to be a mimeographed magazine published by some science-fiction reader in an edition of one hundred copies or so

and full of essays on the stories in last month's *Astounding Science Fiction*, letters from SF fans, and, sometimes, amateur science fiction. I wrote for fanzines myself, sixty years ago, before magazines started paying me for my stories. (The term, derived from "fan magazine," goes back to 1944.) Today a fanzine is more usually a big, glossy publication devoted to video games, the collecting of sports memorabilia, the life and times of some pop star, or any other sort of hobby, and they are very commercial enterprises indeed. Then there are viruses—not the ones that give us the flu, but the kind that want to infest our computers. David Gerrold wrote about them in his 1972 novel *When Harlie Was One*, years and years before most of us ever expected to be using computers in our daily lives. (The companion tech-term, "worm," meaning invasive code that travels in viral fashion from computer to computer, comes from John Brunner's novel *Shockwave Rider* of 1975.)

And so it goes, as a writer who wrote a lot of great science fiction but didn't want it called that once said. We live in a world shaped in large measure by the images and ideas of science fiction—and the language we speak has been shaped the same way. ○

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BRAVE NEW WORLDS

counting

The last time we ventured outside the confines of the solar system in this space was 2005, when we looked at the prospects for finding intelligent life in the universe: **SETI and Such** <asimovs.com/_issue_0508/Onthenet.shtml>. At that time I was crogged to report that astronomers had discovered 136 planets in addition to our local nine . . . er . . . eight. You will recall that in 2006 the International Astronomical Union famously banished Pluto <howstuffworks.com/pluto-planet.htm> to the planetary minor leagues. It is a pleasure to report that, as I type this, we now know of 429 exoplanets in orbit around 362 stars, according to Jet Propulsion Laboratory's **PlanetQuest** <planetquest.jpl.nasa.gov/index.cfm> site. Alas, not one of them is a likely site for a condo development. Indeed, the **smallest exoplanet** <sciencenews.org/view/generic/id/43038/title/Smallest_exoplanet_yet_is_found> to date is at least twice the size of our world and orbits COROT 7, a yellow dwarf star 489 light years away. Unfortunately, this rocky world hurtles around its star every twenty hours and its hellish surface temperature is between 1000 and 1500°C. Bring your sunblock.

Oh, and for those of you keeping score at home, SETI has found exactly 0 (zero) extraterrestrial civilizations since 2005.

discoverers

I have to say that I lose patience with those who claim that humanity's efforts to probe the cosmos are flagging. We live

in a golden age of space exploration; it's just that our satellites are doing all the heavy lifting. Consider, for example, **COROT** <sci.esa.int/science-e/www/area/index.cfm?fareaid=39>, which discovered that smallest exoplanet. COROT—short for Convection, Rotation, and planetary Transits—is the poster child (can a space telescope be a poster child?) for international cooperation in planetary exploration. Led by the French **Centre National d'Études Spatiales** <cnes.fr> with help from the **European Space Agency** <esa.int>, Austria, Belgium, Germany, Spain and Brazil, it was launched in 2006 aboard the Russian built **Soyuz-Fregat** <orbireport.com/Launchers/Soyuz_U-Fregat> rocket carrier. It was the first space mission specifically designed for exoplanetary research. Since its 27 cm telescope reported first light in 2007, it has discovered seven new worlds, most of them as big or bigger than Jupiter.

In March 2009, the **Kepler** <kepler.nasa.gov> Space Observatory was launched into an Earth-trailing orbit around the sun. This was necessary so that Earth does not block its view. Its huge 1.4 meter primary mirror, the largest of any telescope outside of Earth orbit, is specifically designed to spot terrestrial planets and so is much more likely to find earthlike planets than the **Hubble Space Telescope** <hubblesite.org>. Kepler has a much larger field of view and will look continuously at one starfield, estimated to be about 156,000 stars. In January 2010, scientists announced Kepler's first discoveries: five new planets, four bigger than Jupiter, one the size of Neptune. Although none

are terrestrial, it is yet early days in what is expected to be a historic mission.

But how exactly do we find an exoplanet? The obstacles to detection are many, which is why the first published observation didn't occur until 1992, when **two planets were detected around the pulsar PSR B1257 +12** <http://www.nasa.gov/multimedia/imagegallery/image_feature_574.html>. (Later a third planet was discovered in this exotic system.) For one thing, planets do not produce any light of their own. For another, they are lost in the brightness of their star. And don't forget that they are mostly many, *many* light years away from us. However, scientists have found ingenious ways to work around these difficulties.

Radial velocity or Doppler spectroscopy <planetary.org/explore/topics/extrasolar/radial_velocity.html> is currently the most successful tool in the planet hunters' toolbox, although Kepler is expected to change this. Planets exert a gravitational tug on their stars, causing them to wobble ever so slightly. As a star moves toward us or away, we can make very precise measurements of its periodic Doppler shift, if any. These cycles are an almost certain indication that something is orbiting the star.

Astrometry <planetary.org/explore/topics/extrasolar/astrometry.html> is another method for detecting a star's periodic wobble, and thus the presence and mass of orbiting bodies, by pinpointing its position in the star field. Unfortunately we have yet to deploy instruments precise enough to yield definitive astrometric data for planet hunting and, although there have been many claims of planets discovered by astrometry, none have been confirmed. It is possible that NASA's **Space Interferometry Mission** <nexsci.caltech.edu/missions/SIMPQ> delayed many times and now scheduled for 2015, may meet this need.

Microlensing <planetary.org/explore/topics/extrasolar_planets/extrasolar/microlensing.html> allows us to detect the most distant planets, as far away as the center of our galaxy. When stars

align, the light from the distant star is bent by the closer one, resulting in an observable magnification of brightness. This effect was predicted by **Albert Einstein** <westegg.com/einstein> in the **General Theory of Relativity** <pbs.org/wgbh/nova/einstein/relativity>. If the distant star has a planet orbiting it, it will show up as a deviation from the standard magnification event. Although this is the only method currently available to us for detecting the most distant planets, it has the serious disadvantage of relying on the passage of a near star in front of a distant star as seen from Earth, a rare event indeed.

Transit photometry <planetary.org/explore/topics/extrasolar_planets/extrasolar/transit_photometry.html> works by measuring the dimming of light from a star when one of its planets passes between it and us. If this transit follows a regular pattern, we can infer the size—but not the mass—and orbit of the planet. Both COROT and Kepler make use of this technique and it is expected that, in the coming years, they will discover many more planets than all the other techniques put together. A huge drawback with transit photometry is that it requires that a transit occur. If the orbital plane of the distant solar system isn't edge-on to us, we will see no transit. Alas, the majority of planets are not likely to be conveniently situated for this technique.

It is almost impossible to see an exoplanet by optical detection, but it has happened at least twice. Maybe. In 2004, astronomers using the **European Very Large Telescope array** <eso.org/public/astronomy/teles-instr/vlt.html> claimed to have imaged a **planetary "object"** <en.wikipedia.org/wiki/2M1207b> near the brown dwarf star 2M1207. The claim is in dispute since the object may not be a planet at all, but rather a sub-brown dwarf, something between a gas giant planet and a brown dwarf star. In 2008, scientists using the Hubble announced that they had imaged a planet orbiting Fomalhaut and called it **Fomalhaut B** <en.wikipedia.org/wiki/Fomalhaut_b>.

But, direct imaging is a dicey proposition that depends on unusual conditions, and a bit of luck. Its chief benefit is not so much scientific as it is psychological: an image makes a new world easier to imagine.

planet shopping

There are several excellent online catalogues of the known exoplanets. **The Extrasolar Planets Encyclopaedia** <<http://exoplanet.eu>> was established in 1995 and continues to be updated as new worlds are discovered. I was particularly impressed by the huge list—with links—of ongoing search programs. **The Geneva Extrasolar Planet Search Programmes** <exoplanets.ch> catalogues the 291 planets discovered or confirmed by the radial velocity technique. **JPL's Center for Exoplanet Science** <exoplanets.jpl.nasa.gov/index.cfm> is a huge site well worth exploring. The **Exoplanet Exploration Program** <exep.jpl.nasa.gov> pages are a superb resource for the technically minded while PlanetQuest succeeds in its mission of community outreach. Its **New Worlds Atlas** <planetquest.jpl.nasa.gov/atlas/atlas_index.cfm> is a database of all known exoplanets. You can filter searches to can find all the hot Neptunes or pulsar planets or list planets with host stars visible to the naked eye. Why not take the kids out for skywatch tonight?

I can also recommend an amazing site called **The Neighborhood** <deepfly.org/TheNeighborhood/Index.html>. This would appear to be the handiwork of one Raymond Harris who tells us "I'm not an astronomer, but I do love space and all the dark and shiny stuff out there. I try to ensure that all the information presented on this site conforms with current astronomical knowledge." After you get done poking around **Planets Around Other Stars** <deepfly.org/TheNeighborhood/7b-ExoplanetaryOverview.html> click to the home page and journey from the far edge of the cosmos as revealed by Hubble Ultra Deep Field to the local group of

galaxies to the Milky Way to our local solar neighborhood to our solar system. Mr. Harris is an excellent guide and this is a must see site for any budding SF writer.

exit

Although I have a layman's interest in space exploration—healthy but unfortunately constrained by a severe lack of math—I also have a professional interest in exoplanets, since from time to time I find it necessary to build one of my own. Luckily there are marvelous resources online suited to this task. Back in my 2005 column, I recommended **World Builders Home Page** <worldbuilders.org> a great resource that collected materials for a course taught by Elizabeth Anne Viau at California State University, Los Angeles. Alas, although still useful, the site hasn't been updated since 2006. I was also a big fan of **StarGen** <fast-times.eldacur.com/StarGen/RunStarGen.html> and it is still one of the best worldbuilders around. For a wide range of science fiction and fantasy world construction advice, try **SpecFicWorld's World-Building Resources** <specficworld.com/resources/world.aspx>. (And while you're at it, explore the rest of SpecFicWorld, a busy and ambitious site that features fiction and non-fiction) Similar to World-Building Resources is **World Builder Projects** <hiddenway.tripod.com/world>, although some of the links have expired.

I highly recommend **Planet Science** <planet-science.com> a wonderful site funded by the British **National Endowment for Science Technology and the Arts** <nesta.org.uk>, which "is for all children who study science and the teachers and other adults who support them." Just the thing for autodidacts and English majors like yours truly. The Shockwave based **Planet 10 Simulator** <planet-science.com/randomise/index.html?page=/planet10> is a hoot.

If I can do it, so can you. Isn't it time to build a world of your own? ○

SUPERLUMINOSITY

Alan Wall

Alan Wall was born in Yorkshire, England, educated at Oxford, and is currently the Professor of Writing and Literature at the University of Chester. His fiction has been translated into nine languages, and includes *Sylvie's Riddle*, *Bless the Thief*, *The Lightning Cage*, *The School of Night*, and *China*. In his first story for *Asimov's*, Alan explores love and betrayal, as well as philosophy, time travel, and the future. Readers who want more will be able to find it in his new novel of the same name.

"Prove it then. Prove it by doing something for me. Something special. Something . . . uncomfortable."

"Anything."

She walked across to the table, unlocked the drawer and took out an ancient catalogue. She flicked through the pages until she found the picture, then laid the catalogue open in front of him.

"This is illegal," he said.

"Not the only thing round these parts in breach of the repro conventions, is it?"

He stared at the photograph of a shop window in an arcade. It was filled with leather goods. He turned to the front and looked at the date. 1900.

"What do you want?"

"That bag." Her finger pointed at the centerpiece of the window display. A leather handbag.

"You want me to travel back two centuries to buy a leather bag for you?"

"You said anything. And you still have that machine...what was it called?"

"A Tachyon Constellator."

"That's illegal as well, isn't it? Hidden in the shed back there."

"I don't even know if it still works."

"Well, if you love me as much as you say, now's your chance to find out, Jack."

The problem, she claimed, was a new lecturer at the Uniplex. And it was true that there had been a minor dalliance, not the first. She had smelt the perfume on him, not wearing that perfume herself. But the real problem, so he reckoned, was the business with the poodle. Jenny ran a pet manicure and groom service called Tiger in a Thimble, and a month back Jack had stood in for her when she'd had to go away. There had been a poodle, a large one. It had required an elaborate manicure and groom, tufts of curly hair to be maintained here, while other areas were to be shaved completely. Jack and the dog had not got on. The animal, frisky to begin with, surly by the end, had refused to stay still while he wielded the electric razor. So each cut produced a raggedness that necessitated a further cut, a deeper incursion into the jabbering creature's fur. Ruff ruff ruff. Jack had never been unduly fond of dogs, ever since one had bitten him when he was nine, necessitating a tetanus injection. He

had found the injection worse than the bite. Dogs he could live without. Poodles he found ridiculous. The small ones you could at least ignore. Minuscule units of white candyfloss attached to old ladies, their peanut feces tiny enough to permit indifference. But the large ones, with their vast snouts, trembly palpitations, and body shavings—these brought out the animal abolitionist in him. The movement was growing. The fragile ecology of the earth these days meant that animals needed to earn their space, their spoonful of air, along with anything else that ate and moved. Well, they didn't; not in Jack's opinion, anyway . . . Long after the royal family had been consigned to the oblivion fate had prepared for its members, Cruft's continued, and foremost among its otiose embellishments was the topiary poodle. Without thinking, Jack found himself reaching to his top pocket for the poison pellets. And that was when the dog had bitten him.

The bite had seemed to renew the long-dormant trauma of those canine incisions at the age of nine. It wasn't a deep bite, but a few red freckles nevertheless appeared. Tetanus. The previous injection had surely run its course by now. So did that mean he needed another then? To be pierced by a syringe because of an ecologically superfluous pet.

He had stared with undisguised hostility at the great, prancing, air-consuming, defecation-machine called a poodle. It surely existed in defiance of Darwin's requirements for natural selection. The peacock's tail, Jack recalled, had driven the great evolutionist to distraction; a single feather from it could make him nauseous. It appeared to contradict the basic requirements for survival. Well, this poodle was having the same effect now on Jack. And what was worse, the bitch was called Fiona. Jack's recent dalliance (so short it had not been worth the domestic aggravation) had been with Fiona. Fiona had been what his wife referred to as the over-perfumed bitch. He did not care to recall her in any detail. But at least she hadn't bitten his hand.

Jack had continued to stare at the over-large and capering poodle provocatively named Fiona. The poodle, now insolently wagging its decorated poker of a tail, stared back. Had they both worn gun-belts, as in the old movies, they would surely have drawn, there and then. Considering the asymmetric cropping that he'd botched, which made the dog look as though she'd been suffering from galloping alopecia, he had made a decision there and then, an exasperated one. He seized Fiona firmly before she had a chance to demur and shaved her completely, as she yelped and whined, and finally subsided into startled silence. For a moment there she had almost worn the other Fiona's face during lovemaking. Afterward, he had informed the equally startled owners that he'd found evidence of a microbial infestation, and felt he had no choice but to shave the creature and administer a lotion. The appearance Fiona was to have made at a major dog show the following week had needed to be cancelled. Jenny had accused Jack of an incompetence laced with malice, and they had barely spoken since. Her bookings had declined, as word of the cropping had got about amongst the poodle-owning community. In an attempt to placate her he had shaved his own head. She had merely stared at him at breakfast and said, "Will we be canceling Cruft's for you as well this year, then?"

And now here they were in their maisonette in East Cheam, holding peace talks. And all he had to do to set the matter right with his wife was to refurbish an illegal time machine, which hadn't been switched on for over a decade, then head backward into the universe at a speed faster than 186,000 miles per second. The speed of the tachyon. As he remembered, it had always been a potentially life-threatening journey at the best of times.

The Quantum Chimera Experiment had been a spin-off from quantum entanglement. The tachyon had once been a highly speculative particle whose property was

to travel faster than the speed of light; this meant, according to Einstein's still unfuted suggestion, that it moved backward in time. The tachyon's existence had finally been established in the same year as the graviton's, and its mapping coincided with certain major entanglement discoveries. Scientists had realized that if you could re-constellate a human being as a tachyon partner, you would have for a brief period not one but two human beings: one left behind as a hologram awaiting its reunion with its active identity, the other a tachyon constellation which would travel into history, until the entanglement wave-function collapsed. Since the tachyon constellation was massless in motion, it had a virtual identity entirely dependent on its hologram host. The first experiments had been a matter of great curiosity up and down the land. Six of the prisoner-volunteers had never returned from their forays into history (or pre-history), though at least half of those cases had been suspect: some felt they had chosen a mode of escape, a convenient suicide from the present tense into the secure oblivion of the preterite.

Jack pulled the covers from the machine in the corner of the shed. The black metal was dusty. He wiped it down before taking it up to the house. Once inside, he started to put it all together. The memories returned. Jack was a Historic Phenomenologist, Second Grade. This had once qualified him to operate this machine, even to bring it home for fine-tuning and close study. It had not, however, qualified him to keep it when the Program had been officially closed forever. However, he knew the Uniplex Department's bookkeeping was ragged, and doubted anyone would ever notice. They hadn't. And now here it was before him again. Only this time, he would be stepping into it himself. Stepping into the past.

Assembled, it looked like a rudimentary black metal doorway, with a console of switches and lights attached to one of its jambs. The sojourner had attached to his belt a black box with a single button; the pressing of this button activated a series of red lights on the host machine. All that was needed then was for the operator in the present to press the return switch. At that point the tachyon wave functions all collapsed simultaneously and the traveler returned to the present, re-inhabited the hologram and enfleshed it once more. The two became one again. The journey into time would then be over.

Jack reminded himself of the procedure. The specific target date had to be supplemented by two others; this was to ensure that any override would not result in the subject simply accelerating backward in time toward the singularity. So Jack keyed in his three temporal destinations: 1900, 1897, 1851. The second two were offered by the electronic chronometer. He didn't even think about their significance. When all the preparations were complete he went and brought Jenny into the room.

"Once I step into this I'm heading back in time. As soon as I've got your bag for you, I'll press the button on this box on my belt. When I do that these red lights will start to flash, and you throw this switch. Do you understand?"

"It's not that difficult, is it Jack? Nowhere near as hard as shaving a poodle, for example."

"No, but it's a little bit more important. If you don't throw the switch, I'll carry on traveling through time faster and faster, and I'll never come back."

"Anything left of you here?"

"There's a hologram. It will stand by the machine, looking exactly like me—well, it is me, really. A de-motivated me. A Technicolor form of quantum entanglement. Might even speak. It'll be made of my memories. An expression of the mnemonic syntax. You'll need to hang about by the machine. It will be a matter of hours at the most. Then you'll get your nice bag."

"A journey into the past. Faster than the speed of sound."

"Light. It's faster than the speed of light."

"How exciting. So how did people used to travel into the past before they had these machines, then?"

"They didn't."

"You mean they didn't travel back into the past at all?"

"They couldn't."

"So how did they know anything about it?"

"They didn't."

"How did they find a template for the present then?"

"Used something they always called History."

"And what was that?"

"Phantasmagoria. Phantasmata. Traces: graphic, architectural, visual."

"The Plato cave projections?"

"Something like that."

"With the same results?"

"Very nearly the same results, yes."

As a historical phenomenologist, Jack's specialty was the postcard century; the cinema century; the twentieth century. How they had slaughtered one another while dutifully filming the proceedings. The films had all long before been removed from the public realm along with books, as socially distracting. Poetry had gone first, its extravagant lineation leaving so much unprinted paper framing so few words; one of the congresses had deemed it a form of eco-sabotage. Fiction had been next. Why should a single tree have to fall to facilitate the description of unreality, Plato's cave-dwelling shadows prancing about in the latest guises of sociology, psychology, and fashion? Then the rest had all gone one by one: history, politics, science—the misrepresentations so promiscuous, the excess of words so hideously fecund. Images remained, obviously, combined with synchronous sound in economic transmissions of maximum condensation, but the old world of celluloid and glamour—that was a world as far away now as the dinosaur, a world of irrecoverable exotica. Jack sometimes wondered if he had fallen in love with that world in the historical collection of the Uniplex; if his dalliances with new members of staff were really no more than an attempt to recover those magical shadows, that chiaroscuro in which the characters of film noir found their identity. Murderous men and their over-perfumed bitches. He had even once asked Fiona to wear one of the dark hats with a veil from the 1920s . . . something else that was illegal.

When the tachyon had first been discovered it had caused consternation. After all, it contradicted the foundation of modern physics: the special theory of relativity. According to that, no information in the universe could ever be conveyed faster than the speed of light. But the tachyon moved in a state of superluminosity, which is to say faster than the speed of light. And that meant, according to Einstein's brilliant intuition, that it moved backward in time.

"When are you going?"

"In a few minutes. Now remember, Jenny. Don't leave this room till the red lights come on, then throw the switch immediately. I'll be back shortly after—carrying your bag. I'd better take that catalogue with me, to make sure I find the right shop. The things I do for you."

And so it was that shortly after four o'clock on a December afternoon, Jack Reynolds, Historical Phenomenologist. Second Grade, of the 42nd Uniplex, stepped through his illegal Tachyon Constellator into the past. His wife Jenny thought for a moment that it hadn't worked, because there on the other side of the black frame was Jack. Or what appeared to be Jack, his head freshly shaved, his expression uncertain.

"Are you still here then?"

"In one sense."

"Are you the hologram?"

"Not exactly. The hologram is the hologram. I'm the other half of Jack. The Jack-ness of us both is interdependent for the moment, he as a tachyon constellation, and me as a hologram."

"Do you want a coffee then, Jack Hologram?"

"Jack in hologram form can't ingest, sadly."

An extraordinary sensation of lightness. To travel back through time at all, he had lost his mass, or left it behind. To travel at the speed of light or faster, you need to have no mass. So your organic identity is put into temporary suspension. You lose your biographical and biological anchorage in matter. It was, so it seemed to Jack, much pleasanter traveling backward in time than it had been before traveling forward through it. All anxiety vanished. Each year discounted made the load fractionally lighter, as though history were an ever-increasing cargo borne in labor by the human spirit. Which, of course, it is.

His destination: 1900. The Piccadilly Arcade. Maxton's Leather Goods. He felt a slowing in the effortless surge backward. And there he was. The first thing he noticed was the smell. Not entirely unpleasant, unless you hated horses. He didn't hate horses. Dogs were what he hated, particularly large poodles called Fiona with sharp teeth. Why he was here, after all. But he wasn't complaining about being here. It had been raining heavily and Piccadilly's thoroughfare was eighteen inches deep in horse manure and mud. Such was the condition of busy roads before the onset of vehicles powered by the internal combustion engine, which was now defunct as well. Though Jack was already putting the word "now" into inverted commas. Ladies in vast skirts and dresses were being carried across the road by men whom they had only met ten seconds before. The haphazard chivalry of the Edwardians.

Jack stepped into the Arcade. This past was gift-wrapped. In the present he had just left the only purchases were Utilities and Gratuities, both wrapped exactly the same, in grey or black. Ecological economies. But here . . . He stared around him in wonder. The world was lit up, illuminated, each object luminous in its own little halo. The tiny gods shone in the hallowed shrines of their window displays. Commodity fetishism, he remembered that phrase from one of his studies: that was when the object itself was worshipped for its own sake. Hardly surprising, though, given how beautiful they all were. He nearly fell down on his knees there and then. God did exist after all, and like Zeus in his shower of gold he expressed himself in glittering crowds of curiosities.

He made his way up the Arcade past the shining jewelry, the shining watches, the shining pens, until he came to Maxton's. And there at the center of the window was the bag that had brought him here, with a price tag of five pounds—a lot of money then. Or now, as I should probably say, Jack thought, since it is now. But then it is always now, isn't it? There is only one tense and it is the present. He didn't have any money on him, of course, not in the currency of 1900 anyway. For a moment he felt nonplussed: how was he to acquire it? He hadn't thought about that. Then he laughed, a curious bubbling sound arising from his lungs like nitrous oxide. He was of course invisible, or very nearly.

As he entered the shop the clerk thought for a moment that she had seen a tiny rainbow. A reflection, obviously. Only later did she check the window to find that the Florentine bag had disappeared. She burst into tears then. How could she explain this to her employer? And how, if he insisted, could she ever pay for it out of her wages?

Having slowed up in time, Jack had re-acquired a little mass (or he wouldn't have been able to lift the bag). And his electromagnetic wave-functions were functioning, but seldom within the visible spectrum. Now and then he flashed through it briefly, like a temporal apparition.

Jack stood by St. James in Piccadilly and stared at the bag. It was indeed beautiful. Hand-stitched. Real leather, too. This had actually been the skin of an animal. When was the last time anyone had made something from the dead skin of an animal in his world? Had they ever tried skinning poodles, he wondered. He looked around him, smiled, took one last breath of history's reeky air, and pressed the red button on the black box.

Back in the present the red lights flashed and beepers beeped. Jenny sat at the table staring at them and did not move.

"Mission accomplished. The other half of me is ready to come home."

The hologram smiled. Still Jenny Reynolds did not move.

"There's only a limited amount of time here. If you don't activate that switch, I—or he—will move back to the next temporal point."

She stood up finally and walked across to the hologram. The red lights were flashing away.

"Do you share his memories?"

"Some of them. You really do need to . . ."

"Little Miss *Parfumerie*. Do you remember her then?"

"Some of her."

"Which particular bits, out of interest? And where did you two get up to it? Shouldn't think he can afford hotel rooms any more. Was it in the lecture halls at the Uniplex, once all the students had gone? Was she prettier than me, more intelligent? Taller, thinner, smaller, more...well-shaped?"

"You have twenty seconds left to bring me—him—back, or I—he—will be off on the second leg of the journey."

"Second leg. Sounds bipedal. Wonderful thing, bipedalism. Leaves your hands free for . . . massage and manipulation. Not to mention shaving poodles."

The red lights ceased flashing; the beepers stopped beeping. And the hologram lost one of his colors. His face suddenly became rigid, and a part of it fell away. The Jackness of the hologram appeared to be diminishing by the second. Or could it have been increasing? It was being paralyzed into the present.

After the mild astonishment of seeing that he had not been called home, Jack was hurtling back again and even happier than before. 1897, the date he had selected so casually, was the Diamond Jubilee of Queen Victoria, she who had been on the throne for sixty continuous years, and was now Empress of a quarter of the globe. The streets were filled with bunting and children laughing and dancing. Huge signs proclaimed VICTORIA—OUR QUEEN. Jack looked about him, and was astounded at such genuine joy filling the streets. He had never witnessed so much spontaneous happiness in a city in the whole of his life. These same streets in the present he had left behind were concrete scenarios for cars to die in. His finger was pressed to the red button on his little black box. Jenny had obviously had to slip out for a second and had missed the first call. He pressed and pressed. And nothing happened, while around him on the streets the parties and parades proceeded. He almost forgot, in his immersion in this present, that he was not really meant to be in it at all: this present was already past before his own present had even started. He was staring up at a wooden effigy: a little woman wearing a crown of gold. The Empress of India. If she was still alive, then he wasn't yet born. And beside it was a tiny cup, showing the

same picture瓷ically, with remarkable crudity. He picked up the cup and dropped it in the leather bag.

"The matter is getting urgent. There is little time left."

"You speak a little strangely now. Your lips can't seem to move properly. Tell you what you remind me of—one of those ventriloquists in the old days. Jack would bring little films back some evenings. He wasn't supposed to, of course. But we'd watch the old shows. Of course, you know all this. You have the same memories Jack does, presumably. You're like one of those old dummies, speaking with a borrowed mouth."

"I am Jack. Mostly. Are you going to press that switch down?"

"Funny you should ask me that. Been asking myself the same question. Haven't worked out the answer yet."

"Well, you'd better work out the answer soon, Jenny, or there won't be any decision to make."

She moved around in front of the hologram, which was beginning to look shabby, frayed, tired. His colors were coming astray. If he'd been a rainbow, he would have been unweaving himself.

"Do you love me, Jack?"

"People after a certain time . . . I mean, desire is often impermanent. There is a kind of loyalty between people which has much affection in it."

"I'll take that as a no, I think, by the sound of it. Turned down by a hologram. I'm off out for a walk. Leave you and your twin brother to dream about Little Miss Chanel Number Five."

"The last red light will flash soon. If you're not here, you won't be able to turn the switch."

"Why can't you turn it?"

"Because I have no agency. I am only a reflection of him."

"Him?"

"Me then."

"Think I might have been a reflection of him for a while. Echo to the fellow's Narcissus. I'm off out all the same."

And once more Jack was on his way. Final constellated destination: 1851. Why that date? The Great Exhibition. He had come across it once in some research he had done on the pre-history of cinematic wonder, but he could remember almost nothing. And now here he was inside the Crystal Palace designed by Joseph Paxton. In the center of London. Hyde Park. The alchemists had found their stone at last, and it was evidently called a commodity. The whole of human history was an inverted pyramid of skill and ingenuity, and what it now produced, at the point where it was pressing down, was a phantasmagoria of glittering objects, mechanical devices, wondrous things. The future being dreamt by the present. Reality inside this palace of iron and glass was more potent than reality outside: it shone more brightly. One hundred thousand exhibits. Six million visitors. Gathered from the world's sundry corners, any global niche where busy hands might fashion and mighty machines might whirr. The pulleys, cords, and cogs of history were harmonizing here in a single chorus. Cameras and microscopes agreed between them that reality arrived through lenses. But there was also Pugin's chapel, like a mummer's cave in which the past spoke dumbly of rood screens and angels.

Jack stared at the young woman in front of him and picked up a scent, one he did not know. A Victorian odor, a vestige from the museum of historic aromas. He followed her—he was, after all, a historical phenomenologist. His interest in perfumes had followed him into history. She stopped in front of a stand of watches and time-

pieces, and seemed particularly entranced by a small gold pocket watch that could tell you what time it was in London, New York, or Calcutta. As he moved around her this way and that, gazing at her face which did not gaze back, a little boy holding his father's hand said, "Look Daddy, there's a rainbow walking."

"It'll be an effect of the light, Sam. One of the reflections from all the glass and silver in here."

How could he speak to her? He couldn't, of course, and had he spoken she would not have understood him anyway. Only at the end, as she was about to leave, did he flit back to the watch display, lift up the object of her attentions, carry it back, and was about to drop it in her bag. Thus might the future leave a little message for the past. But he bethought himself. What would she do, when she realized it was there? Come rushing back here to return it, surely? Claim some moment of distraction had led her to purloin it, inadvertently? So instead he dropped it in the bag from Florence. And now he pressed the red button on the black box with a new intensity. Am I coming back home, Jenny? Are you there?

She was there, all right. She had returned. She stared at the flashing red lights, then she looked at the hologram, now nothing but a sorry ruin of himself, barely able to articulate his vestigial shape in the early evening light.

"Decision time, eh? Is Jack going to come back in the nick of time to reclaim you, so that we can all be together again? Or shall we let him go back to find his roots? What do you think, Mr. Hologram?"

It was almost impossible for the image to speak now. A few words came out of him and stalled.

"Memory . . . a journey . . . death of desire . . . beginning of . . . beginning of . . ."

"Beginning of what?"

But there were no words left.

"Oh, all right then. Men. You always get your way in the end, don't you?"

She placed her finger on the switch and was just about to press it down when all the lights stopped flashing, and the beeping ceased. Now she clicked the switch to and fro with a sudden urgency, but nothing happened. The lights did not come back on. Nothing whatsoever happened. She flicked it up and down one final time. Nothing.

He didn't care any more. She had not invited him back into the present, and he no longer wanted to go back there anyway. He had discovered the true comfort of resurrection: you were always in the present. The load was even lighter now. And he moved round and round the globe as its cities fell away, its towers downrazed themselves. Viking hulls mimicking the shape of the waves. Now lights were extin-

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guished, darks grew blacker, stars brighter, forests sprouted once more over the vast conurbations of mankind. And he was glad. He realized how much he disbelieved in history; the more he had studied it, the less he could believe any of it. It was all a malignant fiction, all smoke and mirrors, torture and decay. And now the object of his objections, the focus of his disbelief, was vanishing before him. History was coming unraveled, as the hologram's rainbow had already done. Soon he saw mighty creatures clawing one another in primeval pits, as the vegetation yawned massively around them. And then the earth no longer mattered and he was traveling with no effort at all at a speed that abolished space and he was moving along with the stars and the moons and the comets, and they were all racing back toward a single point. It was growing warmer. Very much warmer. The particles hummed about him like bees round a hive. Such vast clouds of particles, some of them seeming to move slower than he did himself. And Jenny was merely one of these clouds, and he laughed to think that he had once wanted to kiss such a dense coagulation of colliding particles.

The heat was now growing tremendous. If the universe had had a coat, it would have taken it off. Now there was no division, no separation of time from space, no alternation between light and dark. There was only a speed that was energy's song, and then the blessed, the longed-for wave-form compression. All in. Everything in. A whole universe of anxiety and dread distilled finally into this one lucid moment. And then . . .

"I just wondered if you might fancy a drink, Fran. At that new bistro over near the Uniplex. Tonight about seven. Feel like a bit of company tonight."

When she went back into the room the hologram had vanished. The machine was still there, and as she walked across toward it she realized there was something inside the frame. She picked up the bag and opened it. Inside was her catalogue, a hideous cup with a picture of Queen Victoria on it, and the most beautiful little pocket watch she had ever seen in the whole of her life. She stared at the face. London. New York. Calcutta. It was some sort of early chronometer. For a moment she almost cried, but she didn't. One other thing in the bag: the black box with its red light flashing. That presumably had steered these items to their home in future time.

That evening, as the two women sat in the bar, she put her bag on the table.

"My God, Jenny, that's beautiful. Where did you get it?"

"A present from Jack. And here's another." She took out the gold chronometer.

"But these are . . . are they legal?"

"Not sure, to be honest. Probably not. Couldn't make them now, that's for sure. Even the raw materials are banned. Beautiful though, aren't they?"

"Gorgeous. What brought this on?"

"Guilt. Some little piece at the Uniplex he'd been having it away with. Did you hear anything?"

"I . . . I heard a rumor. Didn't know what to think."

"Well, you do now."

"And this is his penance."

"This is his penance."

"Quite a penance. Where is he now?"

"Research work again."

"When will he be back?"

Jenny took a long sip of her white wine before replying.

"I really don't know."

And she stared at the bag on the table, made hundreds of years before by loving fingers. She let her own fingers trace the stitching now, over and over again. The past could still surprise the present with its riches. ○



CULTURAL BOUNDARIES

We came upon a miniature world, an asteroidlet, really, whose inhabitants frolicked about our ankles like a wreath of high-energy particles. Even at a walk, their slightest motion blurred. Translators slowed their twittering speech so we could catch up, late into nights that came too fast, ended too soon. They held sumptuous feasts in our honor, but giggled when we nodded off.

It was hard for us to match their enthusiasm. Shortly, they developed their own transcoders, and lectured us kindly on our faulty technique.

They overrode our safeties, accessed our files and equipment specifications, and presented to us, at the farewell ceremonies, reasoned critiques of our research protocol and final theses, as well as redesigned gravitational thrusters and life-support schemata. They were too polite to mention the irreversible biocontamination, or the radiation damage from the spent fuel we left behind.

—F.J. Bergmann

Carol Emshwiller tells us that "PS Publishers in England is doing a sort of 'Ace double' collection of my short stories. One side will be my antiwar stories and the other my regular tales." In her latest story for *Asimov's*, Carol explores the divide between the alien and the human and in the process spins a deeply disturbing tale about who, exactly, is . . .

THE LOVELY UGLY

Carol Emshwiller

We knew they were on their way long before they got here. Several years ago we saw the speck moving toward us. We said, Oh, no, not more smart people . . . *if* people they are . . . *if* smart . . . (but they do have to be fairly intelligent to get here in the first place) . . . but we're already full up. There are limits to how big a population a world can hold comfortably, and so that everybody has fun.

We were watching from the trees when they landed. They took us for creatures both ignorant and wild. We played into that role, howling and jumping up and down. Our hooting was really our laughing. They looked so funny we couldn't help it so we hooted to cover it up.

Then we glided out from the trees and moved closer to the clearing where they had set up camp. That was a clearing we had prepared for them ahead of time. Plenty long enough for their lander. From our experiences with space flight we knew the exact dimensions they would need. We also knew they'd like it near a stream. We picked a little stream, not suitable for navigation. We didn't realize until they'd landed and we saw who they were, that they'd need a path before they could reach the water.

We pretended to get tamer and tamer. We pretended to accept their gifts of beads and bracelets. Couldn't they see those would just hold us down?

And they brought what they call dogs. They use them for all sorts of things, including warning them that we're about to glide in.

We started imitating their dogs, they love them so much, and we wanted to seem just a little bit more intelligent than the dogs are. The creatures began to love us, too. Pretty soon they let us lean over their shoulders and we could see how all their machines were made. We didn't disable any of those things till later.

Now we tell each other, "Bad dog, no!" Or, "Good dog," and a few pats. I saw one of us give her mate a snack saying, "Good dog." They laughed so hard they fell off their branch.

It helps that we have fur and they have none because they seem to consider furry creatures more animal. They think simply wearing clothes makes them more civilized than we are. But when have we ever needed clothes?

I don't think they have any idea . . . and we're glad they don't . . . that we already had space flight and gave it up a long time ago, since this is the best of all possible

worlds. We've already checked out a lot of other planets, so we know. And after all, we were made for *this* world. And even for our anomalous moon.

On some worlds, the natives lie around and complain all day (no matter how long the day), that their world is getting more and more crowded, or hotter and hotter, or full of dust and smoke. . . . Those various natives kept saying, "It didn't used to be this bad," and yet they don't do anything about it, or not enough. Actually, there's hardly any world that couldn't be a paradise if the natives bothered to make it so.

Until now, we've never seen intelligent creatures with neither fur nor feathers nor scales. These creatures are hard to look at. It's as if they have some form of mange. At first we thought they'd infect us with hairlessness.

You can see their veins.

We're teaching these Uglys a pidgin language we invented just for them. We don't want them delving too deeply into our lives. On the other hand, we pretend to learn their language *very* slowly. I'm a trained linguist and am fluent in many alien languages, but in their presence I've limited myself to twenty-five words and a few simple phrases.

They're jealous of our gliding. They hack themselves around in the underbrush looking up at us in the canopy. They gasp, and, "Wow," and, "Oh my God." Half the time our younger ones are swooping around just for them.

They wonder that there are no paths. When have we ever needed paths?

They wonder at the length of our arms and at our arm flaps—at the skirt of skin across from knee to knee. That's not just for beauty, but all the better for gliding.

The forest around them is filling up with their paths. Now, what with their little land planes disabled, they can't go far. They didn't ask *us* if we wanted paths or not. They think we're too ignorant to have planted and nurtured the forest on purpose. Too ignorant to have laid out bushes with thorns and fish berry plants all over the forest floor.

As they were settling in and wondering what was safe to eat . . . (They *had* to settle in. We had disabled their lander) . . . we pretended to eat all sorts of things we wouldn't normally touch. We didn't want them taking any of our favorite foods. We picked safe things—we didn't want to poison them. We found them food we don't bother with. Coarse things that take a long time to chew, and things full of lots of little bones so you spend more time spitting out than taking in. They were food jokes. We watched them testing and eating all those tough and gristly things. Our little ones were laughing right in front of them, but those creatures don't recognize a laugh when they see one even though our laugh is much like theirs. They probably thought the little ones had hiccups.

So we were laughing more than ever, while they, on the other hand, forced to stay on a planet full of thorns and forced to eat all those unpleasant things, were laughing less and less.

They have ears, but not to speak of, so you can't look there for signs of rage.

Just once they ate one of us. (They felt the lack of protein.) That was not so funny. Especially to my family. I was her great uncle. She was still in her baby fat. They roasted her over a fire. They'd probably still be trying to eat our young tender ones if we hadn't . . . well, shown them *exactly* how it feels. None of them is young and tender. Which one to pick was a hard choice. We wanted all their pilots and navigators saved in case we wanted them off our planet. We decided on one of the dog handlers since there are two. We didn't eat him, just left him where they'd find him, beside the path to the stream, spitted and roasted just as they had done to Jally.

But their eating Jally was partly our own fault because of the kind of food we'd shown them. After that we decided we had to let them have fish berries. Lots of pro-

tein and they slip down easily. We hated to see them eating up our supply after we'd spent so much time coaxing out the eggs but they did need better nourishment.

We noticed they took one of us, instead of one of their dogs. Even though we're, clearly, smarter than dogs. Of course the dogs are not easily replaceable, and I suppose they think we are.

Connie? Donnie? I call her Dearie. I do like her color, though she only has that little bit of it on the top of her head. She'd look a lot better if she had fur on her chin and cheeks as the males do. I can see blue veins on her forehead. Arms! Even worse. She, and all of them, are anatomy lessons for our young ones. She's my counterpart, a linguist.

We've wondered all this time how it would be to mate with them, so I'm trying to be nice and not joke too much. Since I'm the main one chosen to study them, I'm also the logical one to study their sex tactics.

If sex doesn't work out with me, there's one of them I'd like Dearie to mate with. It would be fun and funny if she did because he's the ugliest and the oldest. He's even furless on the top of his head where most of them have at least some fur. Since she's pretty, according to her own kind . . . they all say so . . . that would be a good joke. He's Jake. I call him Joke. He thinks I can't say it properly. He's their captain.

My chances with Dearie are pretty good because we hear them say, about us, and over and over, how beautiful we are! How graceful. How wild and natural. How good natured. (That's because we didn't want them saying, Bad dog, to *us*.)

They told us, "We can help you with your enemies," as if we still had any. What kind of a world do they think this is? I mean we have space flight. It makes us wonder about where *they* came from. What kind of a planet is that? With space flight *and* enemies? Where were their priorities? We knew right then it wasn't *us* that wasn't civilized.

They did come with a lot of weapons. They never go anywhere without a pistol and some kind of blinding spray. And, of course, machetes to hack themselves around.

I don't know why or how they ever got started, grew up and thrived and ate and killed without good teeth. Also without fur. Makes us wonder. Without their weapons I don't think they could have survived very long on any planet.

We've been careful not to show them *our* teeth.

To test things out as to sex, I take Dearie into the forest, just the two of us. She started out with her sketchbook, camera, and recorder. (I've got my chip. If I had to carry around all those things, I'd not be able to glide.) Even though she has a camera, she loves to draw: trees and bugs and especially us. I once asked, "Why, when also cameras?" Back on her planet, she's an artist. I was glad to hear they still practice ancient arts.

She brought her machete but she gets worn out trying to make herself a path. There's frustration in the set of her mouth. I tell her, "Sit." (That's what they always say to their dogs and to us, too.) I say, "Stay. Rest." I give her some fish berries. These are bigger and sweeter than the ones we usually let them have. Then, "Come," I say. "Do as if baby on back." (By now I let myself use over fifty words and several phrases.) She does, and I try to glide with her as we do with our little ones. That turns out to be impossible. I had no idea they were so heavy. Even though she's smaller and looks thinner than I, she must weigh four times as much. That changes my mind about a lot of things. Easier if I rode on *her* back. I can't help laughing at the thought.

She laughs, too. She understands how silly it all is. This is the first time I've laughed *with* one of them.

"You're made like a bird," she says. "Hollow bones, I'll bet." She pats my shoulder.

Rubs the top of my head. I let her pat and stroke. It's what they do to their dogs but never to each other. A bad sign for my chances to check on their mating ploys because, much as they love them, they don't mate with their dogs.

I don't think she has any idea that I'm wooing her. So, all right then, maybe I'll talk up Captain Joke. We could learn things from those two. Still, having breasts that are large and furless is a nice idea and attracts us. We all . . . I mean all us *males* like it. Though we haven't squeezed them yet. Not even by mistake. Too bad they cover them up with clothes. Are these creatures ever naked? We haven't seen it, so maybe not. They must bathe in their lander. Perhaps they're even as ugly to each other as they are to us. Maybe that's why they love their dogs so, because they see the beauty of fur.

I didn't even squeeze her breasts when I had the chance.

Maybe next time.

I spend many an afternoon being interviewed by her. She, thinking she's teaching her language to me (I already know it) and me teaching her our pidgin. By now we've often laughed together. There's always lots to laugh about with so many language mistakes. She said the river ran, which is all right in her language, and I said, well cooked smells, which is all right in mine.

She likes me, but as what? Pretty smart pet?

I talk up Captain Joke but I don't need to. She's already in love with him. I can see why. He's a kind creature and, though he gives the orders, he does it with grace and good humor. He often looks worried, but he never gets angry. These people have qualities worth preserving. Serious as Joke always is, he is probably worth saving. I always say, laughing isn't everything, though some of us seem to think so.

They keep saying, "What huge trees. What a dense and high canopy." And we keep saying, "There's a reason for that." We also say, "You must do something about your lander." Still they haven't done anything. They don't think we're smart enough to say anything about such things as landers.

You'd think they'd be asking about the Eye. It isn't as if we haven't taught them the words for it: "Moon of day. Eye of Night." Our anomaly.

We laugh that they don't ask, "What Eye?" And, "What Moon of Day?" And though, to us, and we're brought up that way, everything is a laughing matter, this is not.

Our downy underwear fur has started to grow. We puff out. Looks like their dogs are doing that, too. Just as our fur grows, little by little, the Ugliers add more clothes. They've put on jackets, but I can often still see down the females' necks into the tops of their breasts.

So far they've been living in their lander. (They've piped water from the stream all the way to it). They should move it into the forest even if they have to push it. What do they think those trees are for? Instead they're building useless houses and sawing up firewood. Houses with steps up. They already have stairways everywhere, into their disabled fliers, into their disabled lander. We do see how necessary stairs are for their kind of disability.

I help build Dearie's house. I do most of the roof because I can glide, but she's up there working beside me. I'm glad to see she's not afraid of heights though some of the others are.

She may suspect we're smarter than we pretend to be. I have, on several occasions, seen what I take as admiration on her face.

Even though it's awfully hard to like the looks of hairless creatures, she's beginning to look pretty good to me: Odd and exotic, and then there's those big naked comical breasts.

By now all our other males are paired off with females for the season. That leaves it up to me to find out about sex and breasts and let the others know.

They kiss their dogs so they do know about kissing. I'll start with a kiss. It will be strange what with their odd teeth. I wonder if I can lock on.

Dearie's new house is full of mating bugs. I hate to think of how it'll be after the eggs hatch, but now it's pleasant and musical. They sing to each other in perfect fifths and thirds so that everything vibrates in sync with their song.

We're in the almost finished house. (This will just be a test. I don't know how far I'll go.) I put my arms around her. I keep my teeth covered and kiss a slow and careful kiss. It's not the kind she kisses at her dog.

She pushes back, shocked. By her forehead I see how startled she is. But she isn't angry, just puzzled. Says, "What's this about? What does it mean?"

She checks her ear to make sure her recorder is on, then looks around for her sketchbook. It's on the table. She reaches for it but I'm still holding her.

Her dog starts barking and trying to get between us.

I can't help laughing. I laugh so much I let her go. I can't go on with it.

"You can't draw it," I say. "And it's not to be recorded either."

I wish I had started with her breasts. At least I would have seen what they were like.

It takes her a little while to think about it, and then she laughs, too. Says, "Is this another joke?"

She knows us so well she knows it could be.

"I didn't want it to be, but it got to be one."

Now she she checks her ear to see that her recorder is on, but it always is. I have a feeling she's trying to avoid the whole situation. I don't think she knows what to do.

There's a gold and green beetle, big as her hand, on the wall behind her, singing. I point him out. I say, that's his love song.

She films the bug. I can see his love song doesn't have any effect on her.

I know they can love because I see how they are with their dogs, though I don't see any of that with each other. The males tap each other now and then and the females hug sometimes, but it's the dogs that get the most loving attention. And all the time, too.

Odd, Dearie is in love with Joke and yet doesn't ever show it or say anything about it. I can smell it. Perhaps it's the wrong time of year for these creatures though some of them have paired up, but if there's ever mating, it must take place in the lander.

We've always wanted bugs around us that tweet and twitter and harmonize—that glisten and glow. They're mating this time of year so their eggs will last through the Eye though they themselves won't. We respond as if they called to us, so most of us have gone into the forest by now. But I have no mate of my own. It was my choice to stay with the Ugliers and keep researching though the bugs make me yearn as they do all of us.

I spend the night alone in her almost finished house listening to the bugs. I'm more comfortable in the trees, but this is a better place to hear them singing their sex songs.

We've built a work table and shelves and she's already moved the computer in. She's left all her drawings, too. I hate to think what will happen to them. If I have a chance, I will save them.

Next morning, here she is, greeting me with her happy hello and her usual eager wave. Good signs she's not bothered by what happened yesterday. Also good that she wearing long pants today. I don't have to look at naked, blue veined legs that remind us all of grubs that have not yet seen the light of day.

She comes in, hugging her sketchbook. I take it from her. I will no longer make a pretence at not speaking their language perfectly. I say, "Today let us do as the bugs tell us to do. We have been good friends. We have laughed together."

She looks at me, shocked at my sudden perfect accent, and tries to take back her sketchbook but I don't let her. I say, "This is about to be a pleasant day."

I kiss her, gently, but this time, I kiss as we do to each other, teeth to teeth. How odd she is. I hold her with one hand and with the other pull open her sweater and shirt, stop kissing and look . . . and there they are . . . in all their exaggeration.

I feel them. What a wonder!

In my attempt to kiss them, we fall, I, on top of her.

She tries to push away and yells for help, but, since she's always the first one out of the lander, there's nobody around to hear. She surrenders. Or consents? I don't know which. It's the dog that goes crazy, grabs my ankle and pulls, but I'm as if deaf to all but the bugs song. I'm humming in harmony with them and wishing she would hum, too.

When I get up, her face is blank. I wish there were more ways to read these people. With their dogs, the tail glued down tight between their legs, with us, the ears back against our head. No ambiguity possible. Now, with her, there's nothing at all.

Then she breathes as if she's been holding her breath and begins to shake. Is she, and finally, responding to the bug's song?

She tries to speak but can't. She picks up her shirt (several buttons are torn out. I hadn't realized I was so violent), pulls on her pants, and runs out. Captain Joke is coming out of the lander. She runs to him. They hug and keep hugging. Perhaps I've finally brought them together.

She sits on the ground and he kneels next to her. I see him talk and talk. I move toward them and prick my ears forward.

He's saying, "It's all right." And she's saying, "No it's not."

"It is. It'll be all right."

"No. It won't."

"Come on inside."

I can tell by the way she clings to him that she doesn't want to let go and it looks as if he doesn't want to either.

Though most of the others are paired off, everybody seems to avoid getting close to Captain Joke as if they think his time is too important or as if they think he needs to save all his thoughts and energy for making decisions. Now they'll pair. I can smell it from here.

He helps her up the steps into the lander, but then comes right out again. She doesn't.

He runs toward me. I don't need any big ears to read that he's going to attack me.

In spite of all their problems, I've never seen him angry until now. I think he's going to take out his pistol, but he doesn't. There's no point in trying to fight somebody four, maybe five, times my weight. We do have ways to defend ourselves, but we don't want to reveal them, and I'm curious. This will all go on to my chip.

He grabs me by the wrist and easily twirls me upside down and back again. To him I weigh nothing. I hear my shoulder pop. When he lets go, my arm hangs, useless. I know what that means. If I can't glide and grab I'll be as helpless as these creatures. I'll not even be able to save myself let alone Dearie and Captain Joke.

I'm in a lot of pain, but I say, as if for him. "I know. Bad dog. No, no, no! But sorry dog. Sorry dog."

I'm hanging on to my arm trying to keep it from hurting. I make excuses. "It was the bug's song." It was, but it also wasn't. (If I was with my own kind they'd be laughing at me. They'd be saying, Bad dog, no!, too.) I almost say, I'm just an animal, what

do I know? But I know better than to say that though I now know I don't understand these people as well as I thought.

As if to a dog, he says, "Lie down." I wonder what other torture he has for me. But I do it. I'm resigned and perhaps I deserve whatever he'll do. But he puts his foot in my armpit, grabs my arm, twists, and pops my shoulder back into its socket. So it wasn't broken. It doesn't completely stop hurting, but it's a lot better.

"Thank you."

"Get up."

I do, this time expecting maybe even more help, but as soon as I'm up he knocks me, with one punch, several yards away. Comes and stands over me. "Get up," he says again.

This time I know better.

But he's calming down. I can see it on his face. He's not going to hit me again.

"Don't ever . . ." he says, "Ever. . . !"

He's shaking and he's gone from red to pale, but it's over. I do get up. I'm as wobbly as he is. And my shoulder still hurts. I don't know if I can glide or not.

I had no idea something so fun and ordinary and harmless would cause so much trouble. And even the Captain gets in a rage though he never has before. But maybe he will love her now. Unless I've spoiled her some way.

But he did tell her it would be all right.

But she didn't believe him.

He sits down, for the first time looking worn out and discouraged. I'm sorry to see it. I say so.

"Get out of here and don't come back."

Instead I sit beside him. I say, "You need to know some things and there's only a few days before it happens. I can put back . . . I think you call it the mag-rotor? And you must fly the lander in under the trees."

"What?"

As with Dearie, I no longer pretend I'm not fluent in their language. "I can put the mag-rotor back."

This time I don't see it coming.

I try to talk as he's hitting. "The eye." I say. "You have to know. . . ."

I roll over, my face in the fireproof earth we had prepared for them so they wouldn't set the forest on fire. But that stuff, up my nose, is worse than facing his punches.

I sit up spitting gravel.

"I fear that I'm your only hope."

He grabs me just as he did before, lifts me and twirls me and slams me down and this time does break my arm. I hear it and then see it. The bone has broken through the skin. I'm bleeding.

I'm nobody's hope anymore. Not even my own.

I don't feel the pain right away but it doesn't take long.

He sits beside me, calming down. I'm gasping and holding on to my arm. I see he's taking in what I said a moment before.

But I'm in pain. Can't he see that? I'm sure he could set and wrap my arm as well as anyone even though he's not their doctor.

He stares at me but doesn't see me or my pain. He sees nothing but his own thoughts. "So . . . we're at your mercy, and have been all this time. And I suppose you could have fought back just now and didn't."

I groan. If I could get back into the trees I could get something for pain.

"Donnie doesn't want to see you anymore, ever, and I don't either."

That pains me more than I thought it would. Though right now my arm hurts more. My gentle informant is more to me than just an informant.

I say, "What can I do to make it right? I will do whatever needs to be done."

Now he finally notices the blood and my broken arm.

I say, "Do you people have anything for pain?"

"Come inside the lander."

But I still sit. "There are important things you have to know. We . . . they, not I . . . were going to let you stay right here. Your lander will be tossed away. There'll be gravity and tides from the Eye. Even your mother ship could be lost if it doesn't get out of the way."

"Come on. We do have things for pain. We'll talk inside."

I've been losing blood all this time. I'm feeling faint. I get up, but the ground seems to slant sideways toward me and hits me on the head.

Somebody strokes my arm. At first I think I'm back with my mother and then I see the hand that strokes is hairless. Ugly. Blue veined. I pull away, horrified.

And then I remember.

I'm in the lander. Bandaged, sedated, Window beside me looking out at our grand great trees. I hadn't known the Ugliers had such comfortable beds. They have good medical facilities. We—all of us shouldn't have looked down on them. If we wanted to laugh, it should have been a different kind of laugh.

But there's the Eye. They have to prepare. I try to jump out of bed but the person holding my hand . . . she's their doctor . . . holds me down.

"How many days have I been out? We must prepare. You have to move the lander."

She says, "You've only been unconscious for a few hours."

"Let me speak to Captain Jo . . . Jake."

They decide the best thing to do is to pack up and go off-planet. My kind takes time off from sex and helps them pack. We fix all their little land planes and move them under the trees. Donnie and Captain Jake and three others will ride out the Eye in the canopy with scientific instruments, both ours and theirs. I'll stay with them. They've never seen a planet with such a strange erratic moon. Actually, in all our travels, neither have we.

After they study the Eye, they'll stick around a while but more as our equals though not quite. We'll let them see how we live symbiotically with the trees, but we don't trust them with our science. There's something important lacking in their cerebrum.

It looks as if my two favorite Ugliers, Captain Jake and Donnie won't be getting together as I'd hoped. Though they do feel love. There's some kind of taboo going on I don't understand. And it's the same with Donnie's relationship to me. She loves me but thinks any sex between us is forbidden, just as it is with dogs. I can live with that. Except, when the bugs sing and we vibrate with what the Ugliers, and we also, call "the music of the spheres" (strange how both languages have the same concept even though they don't have bugs that harmonize), and even though they're still the least prepossessing of any aliens we've ever seen anywhere . . . I told Donnie to keep hold of that blinding eye spray because I can't vouch for what I'll do. ○

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CRIMES, FOLLIES, MISFORTUNES, AND LOVE

Ian Creasey

Ian Creasey's last story for *Asimov's*, "Erosion" (October/November 2009), was subsequently picked up for two Year's Best anthologies and an audiobook collection. While Ian doesn't have a blog, he has a website at www.iancreasey.com where he explains the inspiration and background behind all his published stories. In his latest tale for us, the author takes a gentle look at what follows the apocalypse.

As she waited for her grandson to settle in his crib and fall asleep, Sonia tried to find any trace of her father in the little boy's features. But she saw nothing that couldn't be dismissed as wishful thinking. Her father's hair had been a sandy brown; Henry's was blond. With a pang, she remembered Dad's face, the natural contours blurred by the scars and sores of post-Transition war, hunger and plague. Henry was plump and perfect, lolling contentedly in a peaceful house, lulled by the gentle creak of the waterwheel outside.

Sonia wished she could see a reminder of Dad, some quirk of earlobe or mark of eyelid. Her father was buried in Maggie Wood, with no marker upon his grave. The tears welled, just thinking of it. *Silly girl*, she said to herself. *What difference would it make if the child looked like him? He'd still be gone. Get a grip.*

After two weeks of this, Sonia had learned that grief followed its own rhythm: coiling and coiling inside her, wrapping itself tightly around her heart. She tried to keep busy, rather than sitting and brooding. And so, when Henry finally fell asleep, Sonia turned on the computer and began sieving through the latest cache recovered by the data-divers.

This archive had been provisionally dated to fifty years ago, ten years pre-Transition, but the finders had barely glanced at the contents. Drowning in an ocean of words, they needed volunteers to help read the data, classify it, repair glitches, and search for items of interest. Lianne Gottwald led a family history group, specializing in diaries, journals, and all the other forms of self-expression so popular in the old era. Every week the group met to share their latest discoveries, and—Sonia

thought—to enjoy a self-indulgent break from the never-ending cycle of cooking and cleaning and sewing and babysitting. . . .

Her feet pounded the treadle that powered the computer. Electricity only flowed intermittently in the patched-together local grid, so Sonia had to supply her own energy. Decades of hard work had given her a thin, wiry physique. In her mind, she felt too young to be a grandmother at forty; but her bones felt otherwise.

The archive's words streamed across the screen. Sonia recognized the format: blogs, again. She cued up the first of her standard searches, which contained all the names she knew from her family tree.

A dozen matches arose. Every time, these sparked a little flare of hope. She already had the journals of her paternal grandfather and great-grandfather, along with uncounted emails and photos and other heirlooms stretching further back. But there was always the lure of finding something more, something to flesh out the names in marriage certificates and well-worn family anecdotes. In particular, Sonia longed to discover more about her mother, who had died soon after Sonia's birth.

The problem was not a lack of data, even though only fragments survived from before the Transition. The difficulty lay in attribution: distinguishing between people with the same name, and untangling all the silly pseudonyms—Hazana Lover, PurpleSquirrel—that the old-timers used in their blogs and forums. Most of the search results were false matches, with no connection to Sonia's family. Some items had insufficient detail to rule them in or out, and she tagged those as *Doubtful*. Sonia's mother, Belinda Pollitt, had myriad namesakes, and Sonia hadn't yet authenticated enough information to distinguish her mother from the surrounding doppelgangers. Indeed, what could one make of text such as this?

We sat on the porch, passing the bottle back and forth, and watched the snow languidly falling. They say every snowflake is different, but has anyone examined them all? No, I think there are secret duplicates, snowflakes too lazy to make their own shapes, copying their neighbors' symmetries like schoolchildren copying their friends' homework. . . . There are so many snowflakes, some of them have got to be cheaters, don't you think? I tried to tell Belinda about my theories, but she just threw a snowball at me.

Underneath, several pictures of snow bore captions—"Plagiarist!," "Spot the difference!"—that the author had presumably considered witty. Sonia smiled at the self-importance of believing that one's musings on snow should be recorded for posterity. The entry terminated with the legend "0 comments"—no one had ever responded to it. Perhaps no one had even read it, until today. There was so much to read, after all. The old-timers preserved every tiny moment of their lives, like electric slugs secreting a data-trail everywhere they slithered.

Sonia flagged the snowflake entry for the next Clio meeting. Lianne, with characteristic grandiosity, had named her group after the Muse of History, and accordingly the meetings always began with serious research. Discussions then became more light-hearted, with friendly rivalry over who could find the most bizarre snippets from the past. Recently, the group had entertained themselves by reciting, in portentous voices, the most astoundingly trivial and empty-headed posts from the ancient blogs—the competition being fierce, with so much babbling banality to choose from. This was a collective reaction against Lianne's endless tales of her astonishingly high-achieving ancestors, who always seemed to be landing on Mars and winning Nobel prizes.

Disappointed that no fresh details had emerged about her family, Sonia turned to the next standard search, based on keywords such as "archive," "cache," "tech," "back-up," and so forth. The archaeologists always sought tip-offs about places worth exploring. Sonia swiftly skimmed through the matches, knowing that most of them

would lack details of any specific location, or would refer to picayune quantities of data. To prompt a dig in the old cities required a reference to rather more than someone's personal backups of unpublished novels—the recovered data-caches were already brimming with those.

Near the end of the search results, something caught her eye.

Tired today—working late at the day job. I've been prepping the archives, down in the warrens below the Concrete Dominoes. It's brutal in those basements, all nylon carpets and grey corridors with the ceilings too low. When you're down there, you forget the sky exists, and it's always a shock to come back up and see clouds.

Sonia had never heard of the Concrete Dominoes, but it sounded like a nickname that the archaeologists might recognize. She sent Pascal a message highlighting the entry. The Concrete Dominoes, whatever they were, had probably already been pilaged and emptied. But some archaeologists still dreamed that exotic artifacts might yet lie hidden in the ruined cities.

Her third search comprised names that fellow Clio members had asked her to watch for. This didn't take long, since she simply sent all the results to her friends, who'd analyze the matches themselves.

Sonia's next task would be to scan through the entire data-cache, summarizing the content and repairing obvious glitches. But her feet were tired, and she could no longer concentrate. The familiar hollow feeling of futility and loss suffused her; keeping busy only suppressed it for a while. Surrendering to it, she retrieved her papers from their hiding place.

She maintained the illusion of not writing a journal by not dating the entries and not keeping the sheets in any order. Each time, she simply grabbed a blank piece of paper and started writing.

A fortnight since Dad died. Here I am, feeling lost in a fog. I don't know how far it stretches, and at any moment I might walk blindly off a cliff. . . . He was always there, always caring, always protective—my mother and my brothers all died when I was an infant, so he only had me. He didn't smother me; he knew I needed my own path, but he was always there. And because he was always there, I never appreciated it quite enough. And now there's nothing, nothing at all.

The words came out in an untidy scrawl, barely legible. Sonia didn't look back at them. The outburst wasn't meant to be read; it shouldn't even have been written. By writing down her feelings, she was betraying the values of the post-Transition culture. In the battle for survival after the end of the Oil Age, no one could spare time for effete activities such as babbling about snowflakes. Subsequently, as day-to-day existence became less of a struggle, people no longer lacked the time to write diaries—they simply scorned the concept. The old civilization had collapsed under the weight of its own self-obsession, a billion bloggers fiddling while the world burned.

Today, the group met in Zoe's house. She had decorated the walls with photographs taken by her ancestors: in one corner, stunning views of sunsets and landscapes; in another corner, a collection of artfully composed abstracts; and above the fireplace, a set of family portraits. The pictures were excellent. However, most Clio members could assemble an equally impressive selection, having similarly inherited tens of thousands of photos from digital albums of limitless capacity.

In the background, quietly so as not to drown out conversation, a piano recital played. Sonia hadn't caught the explanation of its provenance, but it would undoubtedly be another ancestor's recording, or composition.

"Won't you try these macaroons?" said Zoe. "They're—"

"A family recipe?" said Sonia, smiling.

"Of course!"

Everything in the room, from the tang of rosewater perfume to the ornamental knick-knacks on the mantelpiece, came from somewhere in Zoe's family tree. Everyone competed to show off the best of their forebears. The main difficulty was selection: in the years leading up to the Transition, the amount of recorded data had increased exponentially, so vast hoards of photos and songs and whatnot needed to be sifted to find the best handful.

Sonia shivered. The room felt full of ghosts. She'd heard the archaeologists speculate about technology from the last days of the Oil Age, technology rumored to distill an entire person into a moving, talking image. She imagined the family portraits watching her from inside their frames over the fireplace. Would they be flattered to be displayed as trophies beside the macarons, as relics along with the rosewater perfume?

What if she could put a pseudo-Dad on her kitchen wall? Would that make her feel better? It might comfort her, but she would have to hide it from visitors. Her daughter would shun such a thing, as would most of the younger generation. Sonia's daughter had recently departed on a trading expedition; the products in demand today were practical goods, not the ephemera of the past.

At Clio meetings, everyone sat in a circle and took turns to talk about their finds and heirlooms. Zoe said, "Did you know that the ancients developed a machine to record their dreams? It was used for Freudian dream analysis, and by lucid dreamers, and by the kind of people who twittered about their every passing thought. My great-uncle recorded his dreams every night. He sent them to competitions and websites, although none ever went viral.

"After his death the collection came down to me. I must admit to my personal deficiency as a historian and family archivist—I haven't played *all* eight thousand of them."

Polite laughter rippled around the room, though Sonia could see Lianne impatiently tapping her fingers on her chair.

"My great-uncle kept a comprehensive index of his dreams. For our meeting today, and in honor of our current theme, I'll simply read you part of the listing."

Zoe adopted a portentous tone, as if announcing the Best Cabbage prize-winners at the annual produce show. "Monday—flying over the islands; then in Grandma's kitchen, eating all the cake. Tuesday—three nightmares: slow motion and that thing with the bristles. Wednesday—I was a child again, and I hadn't finished my schoolwork. . . ."

Sonia lost track of Zoe's words. Involuntarily, memories of her childhood flooded her mind. Dad would assign chores—and in the harsh post-Transition world, chores ranged from housework to farmwork to scavenging—but to cajole her into starting, he would play his guitar and improvise a song about whatever needed doing. When she completed the task, he would extemporize final verses describing how well she'd done, or not done. "She missed a bit over here / She missed a bit over there / But it sparkles and it shines / Well, most of it is fine / And the rest / Can be addressed / Another time."

There would never be another time.

Sonia exerted an iron resolve not to weep in front of her friends. They'd been supportive following her bereavement—and some of them, such as Lianne, had known Dad themselves—but this meeting would be a bad time to collapse into tears.

By the time Sonia recovered herself, Zoe had given way to the next speaker, who read an excerpt from her grandmother's diary, introducing it as "The Day I Lost My Keys And Then Found Them Again A Bit Later." Sonia listened closely; she always hoped that one of these fossilized maunderings might happen to mention her mother.

Following this, Deirdre said, "Zoe has already talked about the recording of dreams. But that was only one application of a broader technology. I'm sure it won't surprise you to learn that one of the most popular items to record was—"

"Sex!" shouted someone in the audience, to widespread laughter.

"Absolutely," said Deirdre. "While I have great respect for the archaeologists who retrieve data from the ruined cities, I do feel that some of them have baser motives than a pure love of history. I hear there's a market in what we might call 'nocturnal' recordings."

"Still, there are some virtues in seeing genuine sex, as opposed to staged porn. It promotes a certain realism as to what may be expected in the bedroom—in keeping with today's theme of banality. The night of my own conception was not one of the spicier nights in my parents' marriage. . . ."

Deirdre's further descriptions of her parents' recordings led to much laughter and ribald conversation. Indeed, the topic of sex being inexhaustible, the discussion might never have stopped if Lianne hadn't spoken up.

"Ladies, I know we love talking about this. Some of us even love doing it! But we are serious researchers here. We look into the past not just for entertainment, but for education. The great paradox of history is that the old-timers knew perfectly well what was happening to their world, and chronicled it in detail—yet their civilization still sleepwalked into collapse."

The use of the taboo word silenced the meeting, as Lianne must have known it would. The correct euphemism for the end of the Oil Age was the Transition. To call it a Collapse, or a Fall, might suggest that today's society was inferior. And no one would admit that. No one wanted to think that they lived in a ravaged world, scrabbling for scraps among the ruins. Sonia's contemporaries liked to believe that they lived a better, more virtuous life than their decadent ancestors. They wanted to feel that they used treadle-powered computers and waterwheel-powered machinery because it was a better way, not because they had no other choice. Hence the gentle word "Transition," which carried no hint of the associated gigadeaths and subsequent squalor.

"Actually, the old-timers tended not to chronicle harbingers of the Transition," said Sonia. "Most of them ignored the wider picture. That's why the blogs are so banal."

"Maybe *your* ancestors ignored it," Lianne said. "Mine at least acknowledged it. Some of them fought it—"

Here we go, thought Sonia. Lianne's family leads the way yet again. Now everyone would have to hear exactly how Lianne's forebears had done their best to ward off the Transition, and would probably have succeeded if everyone else's ancestors had been as hardworking as Lianne's.

"Maybe not everyone confronted it," said Zoe, hastily jumping in, "but they reacted in other ways. The dreams, for instance. Three nightmares in one night—is that normal? Or was it awareness of the approaching Transition, weighing on the subconscious?"

"Perhaps it was," said Lianne. "But what would that tell us? That we should examine our dreams to see where the next disaster is coming from? Because if so, I think I should warn you all to be wary of giant marshmallows and enormous guitars!"

Zoe tried to reply, but Lianne raised her voice and kept speaking. "We look to the past to learn from it. We should be inspired by what our forebears have done—because if they could do it, then so can we. That's why I look for the best of my family's deeds, and that's why I'm uncomfortable with our recent focus on banality. Sure, it's nice to poke fun at self-absorbed triviality. It's easy. It makes us feel superior. Yet what does it achieve, other than helping us feel smug? I think it's time to move on from that, but I'm just one voice here. What do you all think?" Lianne's stern gaze swept across the room. "Do we want to carry on mocking the tiniest trivia for a few easy laughs? Or should we aim for something more inspiring? Do we want to admire our ancestors, or sneer at them?"

Lianne's scrutiny rested on Sonia, who was next in line to speak. Sonia wondered whether to deliver her snowflake snippet, continuing the banality theme in defiance of Lianne.

"I don't think we're sneering at our ancestors if we notice the minor moments in their lives," Sonia said. "We're acknowledging that they're like us, that they had ordinary days full of nothing much. Why are you so obsessed with finding what you call the best moments, the most uplifting anecdotes? We're not facing any threat to civilization—that's already happened. Any problems we have are all personal, about how to live our lives. What's the challenge in your life, and why do you need inspiration from the past?"

Following her bereavement, Sonia had become consumed by her own grief and had noticed less about other people's demeanor. Now she saw that Lianne's clothes lacked their usual elegance, appearing mismatched and rumpled, and her haphazard make-up looked as if she'd simply swiped a random lipstick across her mouth. Lianne was only a few years older than Sonia, but she seemed faded and grey, as though she'd lost something or been defeated by the travails of time.

"Is it your husband again?" asked Sonia, suddenly sympathetic.

Lianne's husband was a large man with a large ego, whose conversation mainly consisted of putting people down and making jokes at their expense. It wasn't that he singled out his wife for this treatment; he would take potshots at anyone within range. But the proximity of family life meant that Lianne suffered more than anyone else—particularly as few others willingly ventured close enough. Sonia viewed Lianne's braggadocio about family history as a subconscious search for validation, a roundabout way of asserting some self-identity.

Lianne looked at Sonia for a long moment, and her expression abruptly closed up. "It's not him," she said. "But I can't talk about it."

"If you can't talk, we can't help," said Zoe. "Come on—we're all here to support each other."

"I said it's nothing," Lianne snapped. "Now, are we a group of historians or a bunch of nattering ninnies? Let's get back to the important stuff."

"All right," said Sonia. Since Lianne had rebuffed her attempt at sympathy, she saw no reason to change what she'd originally planned to present. "They say every snowflake is different. . . ."

After the appreciative laughter that followed her recital, Sonia concluded, "If you have a billion snowflakes, they may all be different, but they can't help looking similar. And it's true of people, too. But the minor moments of life, which our forebears preserved so assiduously, do tell us something important. They tell us that our lives of cooking and cleaning and gardening are how people have always lived—"

"Except that they had it easier," said Zoe. "They lived in the golden age of vacuum cleaners and washing machines. We have to do everything the hard way. . . ." Part of Clío's appeal was the escapism of looking away from the dreary hard-working present, to fantasize about living in the magical privileged past.

Lianne frowned, and in a tart tone said, "After Sonia's cheery message that we're all a bunch of identical snowflakes who lead insignificant lives, who's next? Does anyone have anything more elevated, something that might inspire us to reach beyond everyday routine?"

On the wall, the portraits of Zoe's ancestors gazed down at the room's occupants, like exasperated adults waiting for their children to stop squabbling.

The ruins smelled different than Sonia remembered. As a child, she had accompanied Dad and other adults on salvage expeditions, hunting for anything edible or flammable or reusable. Back then, the city gave off a stomach-churning odor of spilled

chemicals, rotting fabrics, and the turds left by hordes of looters. In that maze of broken sewage systems, there'd been no honest untarmacked ground to dig a latrine.

Now, the city smelled . . . rural. Buddleia and knotweed had rooted all along the frost-cracked roads. In the gaping shells of buildings, windblown leaves had decayed into a mossy layer that nurtured foxgloves, fungi, and brambles. Nettles sprouted on every corner.

The setting sun cast long shadows, punctuated by haphazard reflections from broken glass. Sonia's legs ached, but the city was large and they still had farther to walk. At least she didn't have to carry any supplies; the cart had already gone ahead, needing to take a more circuitous route around the rubble-cluttered streets.

Here in the outskirts, the ruins had been picked clean. Little remained: only debris with no conceivable use. Sonia's boots crunched through shards of black plastic.

"Tread carefully," said Talbot behind her. "You might be walking on millions of dead minds."

Sonia paused and scooped up a handful of the jagged scraps. "These? What are they?"

"I have no idea. That's the point—they could be anything. They could be the encoded souls of those who once lived here. Don't you think they must have known what was coming, seen that everything would fall apart? So they would have stored themselves, made copies of their minds for later recovery. Thousands of copies, millions of them—so many that it wouldn't matter if most of them were shattered and lost."

"Then it doesn't matter if I walk on them," said Sonia, fatigue making her peevish. She was too tired to worry about breaking things. The whole city was already broken.

Her father had been born here, grown up, got married. . . . Sonia's parents might once have walked along this very street, arm in arm, happy and in love.

The thought was unendurable. Sonia's throat tightened. Despite her fatigue, she picked up speed as if she could outrace the grief.

"Hey, don't mind Talbot. He didn't mean to upset you," said Pascal, hurrying to catch up with her. "He's just a little over-optimistic about what we might find. You have to be optimistic to keep coming back here. But these bits of plastic—they're nothing but broken flowerpots!"

Sonia said, "You don't think there are millions of frozen minds littering the streets?"

"Probably not," replied Pascal affably. "And even if there were, what would be the point of thawing them out? Those are the guys who got us into this mess! They have nothing to tell us, except how to screw things up. Talbot knows that, but he doesn't care. Last time out, he got drunk and told us that if he found the stored minds of the old-timers and could activate them, he'd put them on trial for destroying the planet, and then sentence them all to electronic hell."

"I suppose he'd volunteer to power the computer, and give the treadle as much zip as he could manage," said Sonia, shuddering at the thought. "But if you don't care about stored minds, does that mean you're optimistic about something else, something a bit more uplifting?" Only after speaking did she realize that she'd echoed Lianne.

"Oh, I'm looking for stored minds as well," said Pascal. "Just not human ones. You've heard of artificial intelligence?"

"Vaguely." She'd seen it mentioned in old records, but only as a looming prospect rather than an actual accomplishment.

"In those days, there were hundreds of projects—they can't all have failed. Technology was racing ahead, computers were becoming more and more sophisticated . . . a breakthrough was inevitable."

Sonia laughed, and gestured at the landscape of empty, decaying buildings. "Some breakthrough! If they made any artificial intelligence worth a damn, how come it all ended up like this?"

"Do you think a newly hatched bird cares about a broken eggshell?"

It took Sonia a moment to comprehend the metaphor. "If this is the eggshell, where's the bird? Flying in some electronic heaven?"

"That, indeed, is the question. Maybe we'll find some clues on this expedition." Pascal grinned, giving Sonia the impression that he didn't much mind one way or the other. "What about you?" he asked. "What are you looking for?"

"My family," said Sonia. The goal sounded rather prosaic, in contrast to the others' ambitions. But she was glad she'd asserted herself, leaving behind the babysitting and the gardening and the housework, all abandoned for a jaunt into the ruins. Bereavement licensed some odd behavior, such as delving into the past that modern society disdained. Right now, she was more free than she would ever be again.

At last they reached the rendezvous and met up with the cart driver. They settled down for the night in a city-center edifice that had once been a hotel. The next morning, the business of salvage began.

The Concrete Dominoes stood by the river, built on reclaimed marshland in the days when that seemed a sensible kind of thing to do. As the pumps had lain silent for decades, and the barrages downriver had long been overwhelmed, the lower levels of the Dominoes were partially flooded. This didn't faze the archaeologists—it only made them more excited.

"Anything underwater, most looters won't bother with," Pascal said. "The deeper the water, the more chance it contains treasure!"

Sonia had to hide a smile whenever her companions talked of "looters," as though the word only described what other people did. Pascal's little team bore the nobler self-applied label of "archaeologists." It was basically the same thing, except that the looters had already stripped the city of anything practical and useful, leaving only dreams and visions to lure the hopeful.

The archaeologists took their diving gear to the Dominoes, and commenced rummaging in the waterlogged depths. Sonia took no part in this, lacking the necessary expertise. Instead she cooked meals, kept the base clean and tidy, and looked after Celeste the cart-horse. In unoccupied hours she wandered the streets, trying to picture the city in its neon-lit glory. Sometimes she imagined herself as a child walking with her parents and siblings. She could easily summon up her father's conversation—perhaps reminiscing about his days as an artist and musician—but she had to invent whatever her long-lost mother and brothers might have said. These melancholic meanderings exerted a strange compulsion, as if she needed to keep exploring the ruins until she found a metaphorical gravestone commemorating everyone who died in the Transition. Of course, the whole city was its own cenotaph.

In the evenings the archaeologists returned with their salvage, and spent long hours poring over it with the scanners and computers they'd managed to cram onto the cart.

"Most of what's down there is water-damaged," said Pascal. "We'll probably only recover a few of the more robust archives. . . ."

The technicalities passed Sonia by. She only wanted to know one thing. "Can we read them?"

"We should be able to, once we establish the formats."

And late that night, Talbot said, "I've cracked the meta-data. Looks like the usual stuff, though."

"No stored minds?" asked Sonia.

"Not in the listed file-types. . . ." He sighed in disappointment.

Next day, when the archaeologists returned to the Dominoes, Sonia examined the newly recovered data. She began with her standard family-tree search.

Her father's name appeared.

It came in the middle of a list, under the heading "Artists involved." Sonia scrolled up for the full announcement.

"Crimes, Follies, Misfortunes, and Love is a new project by a group of today's most exciting artists. They will work in the ultimate form of multimedia: reality itself. The distinction between an artist's life and his work is obsolete—nowadays, art is whatever artists do. People today are more interested in artists' romances and rivalries than in their shows and studios. Rather than decrying this tendency, forward-looking artists have embraced it. The challenge is to bring art into life, so that romance is as passionate as it is in opera, rivalry has the epic scope of a novel . . . and disaster strikes like the most terrifying horror film.

"The artists will live their lives as a permanent performance. It's the logical extension of the blogging culture, in a more honest form. You don't have to read what they *say* happened—you can experience what *actually* happened. Continuous full-sense recordings allow audiences to feel exactly what it's like to be creative, to be passionate, to be uninhibited—to live and to love with the heightened sensibilities of an artistic soul. Nothing is censored!

"To see what's happening right now, select any of the names in the list below. Edited highlights are available, together with complete archives so you needn't miss any of the action. For further information about the project, contact. . . ."

Her father's name led to a broken link. So did all the others.

Sonia grimaced in frustration. She scrutinized the underlying references, and saw that they pointed to a database outside the local sub-directories. The top-level mapping protocols hadn't been found; she had no way of knowing where the database resided. She could only search through all the archives that had been recovered.

It wasn't there—not in any of the readable archives. There was another stack, a pile of rejects, a heap of rust and stains and warped plastic. She had an absurd impulse to carry all the water-damaged components outside, to lay them among the nettles and let them dry under the autumn sun. But she knew it was useless. With a scavenger's eye, Sonia could instinctively discern the least hint of salvage potential; her intuition classified everything on the rusty pile as irrecoverable junk.

Somewhere in there, perhaps, lay a chunk of her father's life. Sonia had heard Dad talk of his time as an artist. He always laughed about it, describing it as the kind of affectation that characterized the pre-Transition era—a time when everyone could pursue refined philosophies of aesthetics, as if collectively designing the perfect typeface for the epitaph on civilization's tomb. Later, in the harsher world that saw the death of his wife and sons, his artistic talents manifested merely in an eccentric approach to home furnishings, and a preference for improvising his own songs whenever he picked up a guitar.

Bitterly, Sonia arranged the waterlogged electronics into a carefully asymmetric composition, just like the photographs of conceptual art that she'd seen in old catalogs. Then she stamped and kicked, sending fragments flying out of the hotel foyer, creating a racket that made Celeste whinny in alarm.

"What's going on?" said Pascal, returning with a wheelbarrow full of diving equipment.

"Did you find any more archives?" demanded Sonia.

"No, we've cleaned the place out. Nice little expedition, though. It was your tip-off in the first place, wasn't it? Thanks for that! If you hear of any other likely places, give us a shout."

Shout? She wanted to scream. But she suppressed it and said, as politely as she could manage, "I will."

"Are you all right?" asked Pascal. "You look—"

Sonia said, "It's just the disappointment, that's all." She told him about the missing database. "Are you sure there's no way of reading this stuff in the reject pile?"

"Fraid not. But don't forget, there's another place where it's all stored."

"Is there?" Sonia stared at him, then continued in an exasperated tone. "Look, I'm not an expert on data backups. And this isn't an archaeology exam, so don't keep me waiting and guessing."

"I wasn't teasing you; I was just trying to think of a way to say it that didn't sound . . . a bit gruesome. The other archive is in his head."

Back home, as she dealt with all the accumulated chores, Sonia mulled over Pascal's explanation. To make those "continuous full-sense recordings," Dad must have had a device installed in his brain. Its standard functions included internal storage, so that people could replay their favorite experiences. And in default mode, it recorded everything. . . .

Was the gizmo still there? Surely it must be. Removal would have required delicate brain surgery; there'd be no reason to undertake such surgery, even if—as was doubtful—the technical capability remained after the Transition.

Could the recordings be accessed? Probably. If Zoe could play back her uncle's dreams, and Deirdre could play her parents' sex tapes, then this was just another version of the same technology. There might be some encryption to break; but given that the artists had specifically signed up for exhibitionism, Sonia felt that encryption was unlikely.

It all led to an inescapable conclusion.

And so, when the chores were finished, Sonia found herself walking up the hillside to Magpie Wood. Anticipation filled her, with a craving almost physical in its intensity. *My mother. . . I could see her, touch her, feel my Dad's love for her. I'd finally know what she was like. My brothers, my grandparents—everything.*

There would be painful sorrows: the chaos of the Transition, the deaths of so many of Dad's family. But oh, the bright shining moments! Romance, marriage—the happiness of living in that golden era, the doomed utopia of the Oil Age.

Silly girl, she said to herself. *Get a grip. What are you going to do, dig him up? Are you really going to dig up your father's body, crack open his skull, and root around in his brain?*

The thought induced a premonitory nausea, a vile taste at the back of her throat as she contemplated the necessary sequence of actions. The smell of the corpse, the texture of it. The semi-liquid consistency of half-rotted brain tissue, the farcical scrabbling and sieving. . . .

Yet it was just salvage, no different to reading old diaries and letters and journals. As her father's only surviving child, Sonia had the moral right to inherit the contents of his skull.

If she wanted to do it—if she could stand to do it—then nothing could rightfully stop her.

The woodland's thickets of thorny brambles sported berries in all shades from unripe green to juicy black. Under her feet, last year's dead leaves squelched into the mud. Only her memory guided her. In reaction to the old era's excess of monuments, today's culture disdained the use of gravestones. She recognized her father's interment site when she saw the turned-over soil; eventually the location would be lost between new saplings and old fallen branches.

"Sonia!"

The unexpected voice made her jump: she'd focused so hard on finding the spot that she hadn't seen the figure standing nearby. "Oh, Lianne—you gave me a frightful shock."

"Sorry. I've been checking on the blackberries. Looks like we'll have a good crop this year—I might make some jam."

This was a departure for Lianne, who'd never previously shown much interest in preserves. But perhaps she had come out for some fresh air. Pallid cheeks and red-denied eyes showed she was suffering from something.

"You don't look well," said Sonia. "Is there anything I can do?"

"Thanks, but there's nothing to be done," Lianne replied. "How did the expedition go? Any exciting finds?"

"We recovered some archives. It was frustrating . . . I always knew we only ever retrieve a few fragments of the past, but it was heartbreaking to see all the unreadable junk. So much has been lost! Did you know that some of the old-timers used to record their entire lives?"

"I'd heard that. I haven't seen any of those recordings—and I'm not sure I'd want to. They'd be a nightmare for historians: imagine how long you'd spend skimming through them to find anything interesting."

"But the day-to-day stuff might be what you wanted to see," said Sonia, thinking of ordinary family life—the kind of details too humble to feature in her father's anecdotes, which over the years had become ever more elaborated, romanticized and "artistic." If she could experience even one day of Dad's memories, that would tell her so much about her mother.

Lianne glared at her. "Are you still harping on about banality? I already got the message—you don't want inspiration, you don't want stirring deeds, you don't want anything that might lift you out of your mundane life. If you want to wallow in mediocrity, that's fine. But don't try to drag me down with you!"

Sonia remembered the last Clio session, when the group had bombarded Lianne with stupendously banal snippets. Now, after her trip to the old city, that meeting felt like an ancient irrelevance. But it was only a week ago, and clearly Lianne was still stewing over it.

Lianne had her irritating side, but she was the woman who'd founded Clio and gotten everyone interested in family history. She'd given them the courage to defy those who derided the idleness of delving into diaries and archives, and suchlike impracticalities. Sonia owed Lianne gratitude for that. She couldn't let this rift continue: she had to smooth things over, or the group would fall apart.

"I'm sorry, Lianne; I didn't mean it that way. I wasn't criticizing you. We all look for different things in the past. I mentioned everyday life because I never knew my mother, and now I might finally be able to see what she was like. You see, it turns out that Dad had one of those continuous recorders, so . . ." Sonia let the sentence trail off, not wanting to speak the gruesome practicalities out loud.

Lianne looked horrified. "And that's why you're here, to get the recording?"

"Not right now," said Sonia. "I didn't bring—" She'd have needed a spade at the very least. "I just came to think about it, and decide whether to go ahead." She stared at the grave, imagining digging down into it.

"I think it's a bad idea," Lianne said firmly. "It's morbid. You've been bereaved and I sympathize—I know what it's like—but this isn't the way to deal with it."

"I'm not trying to 'deal with it,'" said Sonia, offended. "This isn't about Dad. He was there for me all my life; I have enough memories to honor him and let him go. It's about finding the memories I don't have—my mother, my brothers, my Dad's parents and grandparents. It's family history in its rawest form. You always encouraged us to discover our family background, so how can you say it's a bad idea?"

"History's one thing; this is quite another." Lianne frowned. "Diaries and blogs and photos are all artifacts, deliberately made. They express what people chose to preserve. If you delve into a complete archive of someone's life, that's not the same at all: you experience all the minor stuff, the petty resentments and grudges, the feelings that people regret and wouldn't choose to record."

It sounded weak, as if Lianne had first expressed an instinctive bias against the recordings, and then struggled to justify it.

Sonia said, "If anyone puts a continuous recorder into their brain, that's a specific decision: they've chosen to preserve everything."

"Ah, but did he ever tell you he had a recorder in his head?" asked Lianne.

"No—"

"Then he can't have wanted you to recover it. Shouldn't you respect that decision? Shouldn't you respect his privacy?"

"Oh, come on," said Sonia, annoyed at such a feeble argument. "If someone writes a diary that's only discovered after their death, we don't refrain from reading it just because they never told anyone."

"But anyone who writes a diary has the choice of destroying it before they die. Your father couldn't do that—not without brain surgery, which would be impossible after the Transition."

"I'm sure the gizmo had options to stop recording, or delete its archives," Sonia said. She reminded herself that she mustn't let her hopes rise too high: the recorder might be broken, or might contain nothing. "Anything that's left is fair game."

"Are you sure you can cope with what you find? What if you discover that your father resented you, or that he hated your mother?"

"Spare me the 'what if, what if.' I can cope." Sonia looked at Lianne, whose tense expression showed more concern than the situation seemed to warrant. "I don't understand why you're so opposed to this."

And then, suddenly, she did understand. She realized why Lianne was here, standing red-eyed at Dad's grave—and why Lianne was so concerned at the prospect of Dad's memories surfacing.

"You must be in those memories. You must have been close to my father, so close that you're crying even now, three weeks after his death. Were you having an affair with him?"

"An affair?" exclaimed Lianne. "You make it sound like a sordid little fling. It was more than that! We were in love—" She stopped abruptly, as though conscious that she shouldn't broadcast her infidelity to the whole forest. Then she continued in a quieter, calmer voice. "So, now you know. And I'd appreciate you keeping it to yourself."

"I'm so sorry," said Sonia. "It must have been hard for you: not being able to grieve in public, not being able to tell anyone why you were upset. . . ."

"Yes. It's silly, but I resented you because we were both bereaved, and you could show it while I couldn't."

They stood silently for a long minute of solidarity in grief.

"Maybe I should have spoken before," Lianne said, "to you or to someone else. But gossip spreads so quickly; I couldn't risk it getting back to my husband. My fault for never managing to leave him—"

Sonia was hurt by the implication that she couldn't have been trusted to keep her mouth shut; but she had to admit that in Clio, a group of women all talking about family history and relationships, such a snippet would be very tempting to share. She couldn't blame Lianne for keeping quiet.

"I know it looks like I was only arguing for selfish reasons," Lianne continued, "but I meant what I said. I reckon it's a bad idea to see those recordings. Still, it's your decision; there's nothing more I can say. I'll leave you to think about it in peace."

Lianne strode away, her footsteps silent in the soft mass of rotting leaves.

Sonia sighed. She didn't want to think about it now, not after such a draining confrontation. How long had her father been carrying on with Lianne? A fair while, surely, judging by Lianne's reaction to his death. Sonia couldn't decide how she felt

about it. Her father had never remarried, so he wasn't cheating on anyone; but sleeping with another man's wife showed a somewhat flexible morality. What else might he have gotten up to? Did she really want to delve into his memories and find out? She might resolve to examine only the early recordings, before her mother's death—but could she trust herself to stick to that, and not be tempted by all the juicy secrets that might lie beyond? She pictured herself going to Clio meetings, presenting the choicest extracts of her father's life. . . . It was an undignified prospect.

Something about Lianne's purposeful, rapidly disappearing stride awoke a sliver of suspicion in Sonia's mind. What if Lianne had only made a tactical retreat? What if she still wanted to prevent Sonia from seeing the recordings? Perhaps she might even want the recordings for herself, if she loved Dad that much. Sonia thought of Lianne going home, collecting the necessary equipment, discreetly returning to Magpie Wood, hiding and waiting for Sonia to leave, then beginning her grisly work. . . .

The vision was too powerful for Sonia to dismiss. While she couldn't know whether Lianne planned to return, it was certainly a possibility. And so it made sense to act first. Sonia's home was nearer than Lianne's. If she left now, she'd have just enough time to come back and remove her father's skull—for safekeeping, naturally. Then, later, she could decide whether to retrieve the recorder, or perhaps bury her father in a more private place.

Silly girl, she said to herself. *Don't kid yourself. If you dig up Dad's head, you'll never resist the temptation to look inside.*

The same, of course, applied to Lianne.

As she walked away from the grave, Sonia imagined the forthcoming race: herself and Lianne rushing up to the wood like treasure hunters. It reminded her of childhood, when swarms of looters pillaged the old cities, racing to grab the choicest relics, squabbling over the spoils.

She hurried onward, trotting down the hill, almost falling as her feet slid on the wet grass. When she reached home, she dashed into the toolshed and scanned the implements inside, checking for sturdiness and sharpness.

Only when she grasped a spade, hefted it, turned to leave . . . only then did the doubts assail her.

I'm going to dig up Dad's grave. I am, apparently, going to violate Dad's corpse and crack open his skull.

How did it come to this? I only joined Clio to meet people, have a little fun, steal some time away from all the chores. Sure, I wondered about my mother—but that was partly a way of looking back to better times, wishing I'd lived then rather than now. . . .

It had gone too far. Disgust and self-loathing filled her at the thought of the looming butchery. Abruptly, Sonia threw down the spade. Its metal edge clattered on the stone floor.

Then she grabbed the spade again. If her father's grave were to be robbed, better by his daughter than by his fancy woman. How could she leave his body to be dug up by Lianne?

Sonia shook her head. She had no proof of Lianne's intention, only a dark suspicion. It probably wouldn't happen. If it did, it showed how badly Lianne needed to find what she always talked about, inspiration from the past. And if she needed it so much, maybe Sonia shouldn't deny her it.

Better not to need, if that's where it led. Better to find solace in the present—to try to move forward, rather than look endlessly backward. The future lay with the next generation, not the last. Her daughter, her grandson . . . she should focus on them, instead of her long-dead mother.

Yet as soon as she thought of her family, her feelings swung again. Abandoning Dad's grave would destroy their inheritance. What if they asked about their history?

What if they wanted to know how their forebears lived? How could Sonia tell them that she'd discarded the recordings, just from a little squeamishness?

A week ago, she'd leaned over Henry's crib and longed to see a trace of her father in the boy's features. Now she had the chance to pass on not her father's looks, but his whole outlook—everything he had ever thought or done; every trace of his life, saved from oblivion.

Sonia trudged out of the toolshed, carrying the spade. She wanted to ponder the issue at length, to get her journal and scrawl down her feelings until she came to some conclusion. But she lacked the time. Lianne might be haring up to the woods even now. . . .

That was the trouble: the pressure of one thing leading to another. If she dug up her father, why would that be the end of it? New temptations would arise from whatever she found in his head. There'd be new leads, other grails to pursue. Before the Transition, data had grown exponentially, almost infinitely. She was in danger of spending her whole life sifting through the debris.

It had to stop somewhere. It should stop now, while she still retained a little dignity—before she ended up with chunks of her father's corpse splattered over her clothes and skin.

As for Henry's inheritance, it lay around him. It was the whole ruined world.

Sonia entered the house and retrieved her scribbled journals: every page of the self-absorbed backward-looking babblings. She carried them into the vegetable garden, down to the compost heap by the hedge. Stabbing the spade into the heap, she levered a space in the interior, where last month's carrot peelings and onion tops slowly rotted down to make soil for next year's crops. Then she tore up the papers into tiny illegible scraps, and fed them into the wormy depths.

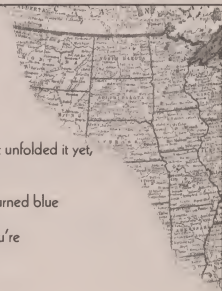
For a few moments Sonia stood quietly, feeling empty and numb. Now she had no Dad to look after, no Clio meetings to look forward to, no archives to look back at. . . .

Yet she would find something else to fill the rare gaps in her days. It might be something productive; it might be something frivolous. In the meantime, there were plenty of chores to keep her busy. On her way back to the house, she passed the gooseberry bushes and spent a few minutes picking caterpillars off the leaves. Then she hurried inside to start preparing dinner and get the crib ready. She was due for babysitting again tonight. ○

A WRONG TURN

It's a folded tesseract,
Small enough to fit in the glove compartment,
Edges neatly pressed to hide that it's all the same side.
Take it out, put it on your lap, and start unfolding
Until it's the size of a suitcase, now it's larger,
(Good luck folding it back again);
Now the car windows are the edge where you haven't unfolded it yet,
Swallowing windows and letters, clouds and arroyos,
Whoops! There goes Las Vegas,
And you know when it's finally all open because it's turned blue
And lines become as fine as in a Chinese painting,
And you're sorry you didn't pack a lunch, because you're
going to have a heck of a time finding a sandwich.

—Elizabeth Penrose



Pamela Rentz is an enrolled member of the Karuk Tribe of California, whose favorite place is Orleans on the Klamath River in Humboldt County, California. For almost twenty years, she's worked as a paralegal specializing in Indian Affairs. She began writing stories sometime around the second grade and attended Clarion West in 2008. When she's not writing, she spends her time cooking, growing pumpkins, and looking for her glasses. She lives in Vancouver, Washington, with her husband, Bob Hughes. Pam's personal website is: www.pamrentz.com. The author's expert knowledge is on display in her first professional sale—a wry look at . . .

THE BATTLE OF LITTLE BIG SCIENCE

Pamela Rentz

Agnes Wilder stared into Ike Ferris' creased brown face. "You need what?"
"A cart, you know, so we don't have to walk all that way."

"I'll look into it." She kept her voice even. "My budget doesn't allow for a lot of extras." She couldn't believe that her critical scientific research funding relied on people too old to walk to the conference room from the parking lot.

"Well, I don't know how you river Indians do it," Ike said, "but around here it wouldn't be extra." His face remained serious but he gave her a wink. He held the arm of Ramona Larson, who tottered next to him using a cane. Ramona's perm frizzed around her face in a halo of gray; she had a niece in beauty school. She peered over the rims of her thick glasses. One earpiece was fixed with a strip of black tape.

In the conference room, Agnes offered Ramona a seat. Ramona turned around and slowly lowered herself into the chair, the entire affair seeming moments away from disaster.

"You got that time machine working?" Ramona asked.

"We prefer to call it a history viewer," Agnes said, wondering how to best get the idea across. "We believe machine sounds. . . ."

"Your name for it doesn't sound so great either. Why don't you talk when everyone gets here?" Ike gestured at the empty table. "You got coffee?"

"And cookies." Ramona had gotten back out of her chair and pulled on an armrest.

Agnes moved to help her and, at Ramona's direction, slid the chair about six inches closer to the window. "That's good." Ramona settled back into the chair. "I'm ready now."

"Good." Agnes wanted to get the thing out of the way. Delivering tidy presentations on the project's potential year after year was a tedious waste of time. She couldn't wait to get back to the lab.

Agnes hustled to the lunchroom for refreshments. The Pacific Northwest History Viewer Project had been housed in the same solid cinderblock building for twenty years. What was once new and shiny had faded to dusty and drab, which mirrored the prestige of her project. Just outside the lunchroom her foot slid on a patch of linoleum worn slick, no doubt from her own shuffling feet, coming in and out for coffee day after day. As her arms flapped about to catch her balance she could see that the wide, handrail-free walls were a hip injury waiting to happen for the visiting Executive Board.

In the lunchroom, the senior lab assistant, Theo, poured coffee from a tall paper cup into a mug. The coffee machine had broken two weeks earlier and Agnes hadn't managed to replace it.

"Leave some for the Board." She grabbed the mug out of his hands. Agnes poured coffee back into the paper cup and returned his mug. She pulled down the smallest cups in the cupboard and split the remaining coffee between them.

"Am I going to have a job next year?" Theo winced when he tasted the coffee.

"I'm working on it." Agnes zapped the cups one at a time in the microwave.

"I don't understand why you don't just show them the working model."

Agnes shuddered. "It looks like a bunch of junk held together with duct tape. It fuzzes out in harsh weather. The sound goes flat. I need to impress them."

"You don't think time viewing will impress them?"

"I want it to be right," she said.

"Did you think it would end up like this?" Theo asked. "Having to explain complicated science to decrepit old Indians?"

"Indians respect their elders," Agnes said with a frown. "And, sure. Indian science requires groveling for funds like any other science organization."

She opened and closed cupboard doors. "Do we have any cookies? Aha!" She found a package of graham crackers behind six slightly aged jars of non-dairy creamer that had been priced for her budget.

"I admit, with all the gaming money out there, I expected the Tribes would elbow each other out of the way to throw money at us." Agnes wiped off a plate with a paper towel and arranged the graham crackers. "No one understands what we're doing."

Theo opened a drawer and scooped up a handful of fortune cookies in cellophane wrappers and spread them out on the table.

"Great find," Agnes said. She added them to the plate and put the cookies and coffee mugs on a metal tray. "Why don't you stay in the lab until they leave."

"Sure thing." Theo saluted her with his coffee. "Good luck."

Back in the conference room she set the tray in front of Ike and Ramona.

"What's this stuff?" Ramona nudged a cookie with a crooked finger. Ike pushed a mug closer so she could reach it.

Maisie Perch staggered into the room under the load of zucchini she carried, one bulging plastic grocery bag hanging from each hand.

"Why you let those get so big?" Ike said.

"I forget the damn things are out there." She pulled one out of the bag and dropped it on the table with a *thunk*. "You can use these, right?"

Agnes offered a half-smile. Maisie had brought these giant vegetables to previous meetings and they sat in the lunchroom with their soft spots spreading until Agnes carried the stinking bags of mush to the dumpster.

Maisie wore a Royal Salmon Casino sweatshirt that was a half-size too small and she pulled it down to cover her well-fed belly. Her hair had been freshly dyed and sat on her head like a black hut. "I don't want to be here all afternoon." She lined up the rest of the zucchini on the conference table with a serious face. "I got to get my grandkids and then I got bingo. You know they want to shut down the bingo?"

Ramona gasped.

"It's true," Ike said.

"Council thinks they make more money if they put slots in there," Maisie said.

"Bah, Council," Ike said. "They gonna have a riot if they do that."

Agnes tried to picture a room filled with cigarette smoking elders overturning tables covered with bingo cards and coffee cups.

"Somebody's got to do something," Ramona said. "We need bingo."

"I don't think anyone would get rid of bingo," Agnes said with calming authority. Maisie was fond of making dramatic statements and Agnes didn't want the discussion to veer too far from her agenda. "We ready to get started? What about Lew?"

"Saw him last week." Maisie dropped into her chair. "That man looks like he was hit over the head three times with a coffin lid."

"He's not doing so good then," Ike said.

"No," Maisie said. "What about that new guy?"

"There's a new guy?" Ramona asked.

Agnes tried to remember the Executive Board bylaws. Could three members make a decision? She moved to the front of the room and clicked on the overhead.

"Wilber," Maisie said. "He's that guy from Oklahoma. Looks like Santa Claus in a ribbon shirt."

"I don't remember him." Ramona bit into a fortune cookie and it disintegrated into a shower of crumbs. She swept them to the floor.

"He can't make it," Agnes said. "His wife said he had a health issue." She dimmed the lights.

"Doesn't matter. He never talks anyway," Ike said. All three of them laughed.

"Wait, aren't we going to do a prayer?" Ramona looked at Ike.

Agnes inwardly groaned. Ike's prayers tended to last half as long as the time available for the meeting.

"No. Get started." Ike made a little lasso motion above his head. "I got bingo, too."

Agnes had spent three weeks reworking her presentation. She didn't care what she had to say or do to get the money, only how she said it. How precisely could she get the message across?

She clicked the remote and the American Indian Science Consortium logo splashed onto the far wall. The screen had fallen down two years earlier and since the wall worked she'd never bothered to replace it. She clicked again and a brightly colored bar chart appeared showing her annual budget for the last five years with each successive bar growing shorter.

"Thank you for coming today, Board members." Agnes looked over and saw three elderly Indians with their mouths open and the light of the display reflecting back from their glasses.

She put up a painting of men perched on wooden platforms dip-net fishing at Celilo Falls, a wide swath of foaming water around them. "What would it be like to have a window into the past? To view true history over the shoulders of our ancestors?"

"That's what we want to know," Ike said.

The next image showed an Indian village. Women carried baskets filled with plants and children ran nearby with a dog. "What if we could be there and feel the wind in our hair, smell the wild grass and hear their songs?" When she'd practiced it at home, it sounded more spontaneous.

"We already seen this, Agnes. You show us the same thing every year," Maisie said. "When can you make the machine work?"

"This is a new presentation," Agnes said. "If I may continue?"

"Just get to the new part," Ike said.

"We've had a major breakthrough this year," Agnes quickly forwarded the slides until she reached the artistic representation of the device. The picture showed a half circle of luxury seating filled with awestruck individuals looking out over an Indian village. The picture nicely avoided the jumble of wires, scratched silver panels and extremely unsafe power hack they'd devised for the test model.

"It's beautiful," Ramona said. "When do we see it?"

"That's what we need the funding for," Agnes said carefully. "I want you to experience the device in top quality. As it is—"

"You haven't done nothing," Ike said. "What's taking so long?"

"This is a complex project," Agnes said. "But we're very close."

"It's been twenty years and we still don't have Indians traveling through time," Ike held his hands up in disgust.

"It sounds like you may misunderstand the project. If you let me finish my presentation, you would see that we do have something," Agnes said. "I've got a working model but it's—"

"Those Florida Indians can go to the moon and one of those Sioux bands, they got something with the plants, and the Hopis invented a cure for diabetes—"

"It's not a cure," Agnes said.

Ike gave her a fierce look.

"Sorry," Agnes said. "Go ahead."

"The Consortium don't want to fund this one any more," Ike said. "They said we have to show them something or it's finished."

"But you've always funded this project," Agnes said.

"The Tribes don't fund the project," Ike said. "The Consortium funds the projects. They don't care about your dinky thing."

Agnes felt as if she'd fallen through a hole in the world. She opened and closed her mouth several times but couldn't think of where to start until she finally stuttered, "Did you say end the project?"

"What's all this good for anyway?" Maisie said.

"What's this good for?" Agnes stuck her trembling hands into her pockets. Twenty years of her life would be for nothing if she lost the funding now, so close to a full-fledged operational model. How many times had she visited home and been nagged about coming back and helping her own people? "I am helping Indian people," Agnes had told them. What would she tell them now?

"Think about it," Agnes managed to say calmly. "We can go back and see what really happened. Correct history books. Restore cultural knowledge. So much has been lost." She could see from their puzzled faces that her message wasn't getting through.

"Or other uses. What about recreation? People could visit the eruption at Pompeii. Education? Students could observe Marie Curie in her lab or attend the coronations of kings."

"That stuff?" Ramona said.

"Legal mysteries," Agnes spoke quickly now. "We could identify Jack the Ripper." Off Ike's grimace she added, "Or what did Uncle Chester really intend when he wrote his will?"

"So, you could take a bunch of school kids to a big war?" Maisie asked.

"I'm not sure about that," Agnes remembered her own visit to the night the gold miners had burned one of her ancestors' settlements. She still had nightmares about it.

"You don't got nothing," Ike said. "They want us to show them a time machine."

"I do got something," Agnes said, surprised by the force of her words. "What do you know about time travel? Space travel was already invented. Anybody can send an Indian to the moon, especially when you throw all that money at it. The Seminoles get an aeronautical complex the size of Rhode Island and funding to recruit rocket scientists from all over the world. I'm stuck in a concrete longhouse that looks like a prison with a budget so small that I'm down to a staff of five. You ask me to invent time travel with five people."

"I thought you said that thing works," Ramona said.

"Yes, however—"

"Show it to us." Maisie slapped a hand on the table and all three of them jumped.

"It works." Agnes didn't know how to convey the precision that was involved. "I want it to be right when you—"

"You don't got any more time," Ike said. "We need to bring something back to the Consortium."

Agnes stared at the zucchini, trying to calculate based on the estimated mass, how many loaves of bread she could convert them to, provided she had the time and energy. The equation took shape in her head.

"I will prepare a demonstration," she finally said. "Give me a month."

"No. We meet with the Consortium next week." Ike pushed his empty coffee mug away with finality. "You get it done this weekend. We'll come see it on Monday."

Maisie picked up her things and breezed out the door. "I'll see you there."

Agnes eased herself into a chair. She could have taken on any research project. But no, she wanted to breathe the pure unadorned truth of her ancestors. She wanted to be present in true history. Why couldn't she get this across? She began planning her weekend at the lab. Maybe the people back home were right. She should have stayed and been a teacher and exposed young Indians to the wonder of science.

She pulled out a piece of paper and began making a list of what she needed for Monday. Maybe the university could send over some graduate students and allow them to borrow some supplies and equipment. She needed to check her stash of office clothes and snacks. She was no stranger to sleeping in the lab. She jotted these items down, making a note to buy cookies and bring her coffee maker from home.

Someone coughed. Ike and Ramona sat in their chairs watching her.

"Can you drive us to bingo?" Ike asked.

"I'm afraid not." Agnes collected her papers and shut down her presentation. "I have a major scientific project to demonstrate on Monday. Can I call someone for you?"

Ike pointed at the clock. "You can quit early today. We're your boss."

Ramona wore a pillbox sweater with cuffed sleeves and she pulled a tissue from one of the cuffs and blew her nose. "I got my bingo bag with me." She reached out and patted the quilted bag that hung on her chair.

Agnes looked at the elders and then at her list. Theo could get it started. "Sure, I suppose I could drop you off."

Agnes drove the official van of the history viewer project because it ran better than the battered two-door subcompact she owned. Ike climbed into the front while she helped Ramona fasten her seatbelt in the back. The elder's knobby hands weren't strong enough to push the latch into the buckle.

The casino was on the other side of town. This particular casino had been built after Agnes' project started. Agnes wondered if the Tribe funded any other science projects. A tall neon sign at the side of the highway marked the turn-off and they drove another couple of miles before the hulking structure appeared.

"Elders' entrance." Ramona held her bingo bag on her lap.

Agnes pulled up to the awning built from giant logs that had been polished to a yellow shine. A kid in a red blazer stood at the valet stand. He smiled and waved.

"More." Ramona motioned for Agnes to pull forward.

Agnes drove right up to the sign at the curbside that said, "Elders' Entrance." As soon as she stopped, the kid in the red blazer had the door open. She recognized him as Maisie's nephew who had visited the lab once for a school project.

"Hey, Mr. Chairman," he said to Ike, even though Ike had been out of office for years. "Hi Ramona," he called. He released Ramona's seatbelt and helped her out of the van.

Ramona tapped the kid's blazer with the back of her hand. "You look good." She gave Agnes an expectant look. "You coming?"

"Too much work to do," Agnes said with feigned brightness.

By now the kid had come around to Agnes' door and offered her a hand. "Come on, you know what they say: bingo is for lovers."

Agnes wondered if she had missed something when Ramona and Ike laughed.

"I really can't," she said. The electronic *ching* of the gaming machines drifted out the open door. Agnes couldn't remember the last time she'd done anything for recreation.

"Come along now, young lady," Ramona urged. "You need more time with the people."

"Okay," Agnes said, still not sure. The kid pushed the valet ticket into her hand. "One game. Then I have to get back."

She followed them inside and could hardly keep up as they crossed the casino floor to the bingo hall. At the admission window, both Ike and Ramona bought the Premium Level Dancing Feathers pack. Agnes balked at the price and used the last bills in her purse to buy the entry level Roaring Rivers pack instead.

Inside, the room was already three-quarters full but Maisie saw them come in and waved them over to her table.

"You too, eh?" she said to Agnes with approval. A little girl ran up to the table and grabbed a handful of Maisie's blouse. "Grandma!" She offered up her bright face. Maisie leaned down until their foreheads touched, then the girl ran off again.

"Those kids love bingo," Maisie said.

Ramona opened her pack and spread the cards out on the table. Then she opened her bingo bag and pulled out a red dauber.

"Should I get one of those?" Agnes said.

Ramona shook her head, "You use that one."

"What about you?"

Ramona pulled out a plastic sack with eight more daubers each in a different color and arranged them in a semi-circle on the table. "These smell like flowers," she said. "Try one."

Agnes picked up a dauber and it did smell sweet, though closer to grape punch than something you'd find in a flower garden. "It's nice." Agnes sniffed her red dauber and it smelled like sour ink. Ramona set a Royal Salmon Casino mug that Agnes recognized from the office next to the daubers and then took out a photograph of her husband and a smooth black rock that looked a little bit like a heart.

"What's that?" Agnes asked.

"For luck." Finally, Ramona set out an ashtray that said Pendleton Round-Up 1972, a pack of Omaha cigarettes and a silver lighter with a chunk of turquoise on it. "Some of those places use computers for bingo. I like the cards."

By this time Ike and his wife had shown up and they spread out their own array of daubers, theirs with pictures of cowboys and Indians, and good luck charms consisting of a wooden buffalo nickel and a troll doll with wild green hair.

"We need coffee." Ike sat up and searched the room.

Maisie whistled and a bored and unsmiling Indian boy approached the table. "Here's our runner," she said. "This is my grandson, Junior. Say hello to the former Chairman." Junior shook Ike's hand. "Nice to see you, sir."

"Bring us some coffee." Maisie tossed him a twenty from a beaded coin purse she wore around her neck. "I see the bingo caller, looks like we're getting started."

Ramona patted Agnes' arm and showed her which card to use. "Do one card so you can keep up."

Agnes bristled at the instruction. She had degrees in physics and history and had invented a time viewer on the world's smallest budget. "I'm sure I can keep up."

The blower blew a single ball into a tube and the caller began. Agnes was still searching her card when he called the next number.

Agnes quickly forgot her intention to stay for one game. Over the next several hours she struggled to keep up with the elders. They all had cigarettes hanging out of their mouths and double-fisted the daubers, periodically leaning over and hitting Agnes' cards with dots without missing a beat in the conversation.

Ramona won four hundred dollars and grinned across the table. "This is how I make my pocket money."

During intermission Junior brought them sodas and hamburgers. While they ate the bingo caller made announcements about bingo events scheduled over the next month.

Then he said, "We have no other events scheduled at this time. Tribal Council is considering closing the bingo hall to make room for casino improvements."

Unhappy cries filled the room.

"You were serious," Agnes said to Maisie. "That's like canceling Christmas."

"Or worse." Maisie shrugged unhappily.

"You need to take your complaints to them," the bingo caller said. "Not my idea."

"What would you do without bingo?" Agnes asked.

"I don't know," Ramona said, shaking her head. "This is where my friends are."

Agnes spent the rest of the weekend in a frenzy of preparations. Her biggest problem was her grand vision for the perfect demonstration. She'd always envisioned taking a group of Indian kids, parents, and elders and presenting it in the way she imagined they'd use the device for tourists. The group would view iconic moments in Indian history and upon returning enjoy a traditional feast and dancing.

Instead, she met the Board members at the front of the building with an electric cart she borrowed from the grocery store. Theo had rigged it so that one person could drive and one person could ride facing backward. Agnes helped Ramona into this seat and showed Ike how to work the controls. Wilbur showed up and he nodded when Agnes said good morning. He wore a blue calico ribbon shirt and his big white beard fanned out over his chest.

Ike started the cart and crashed into the door frame. Ramona's cane clattered to the floor.

"Watch it, you," she said. Agnes handed her the cane and helped Ike steer inside.

"This place needs some paint," Maisie said.

"This place needs a lot of things," Agnes said. She guided the group to the elevator and took them to the lab entrance. She led them into the room, a high-ceilinged space with gray walls. One half was filled with computers and narrow metal tables stacked with papers. Theo typed into a keyboard attached to the device which took up one wall. Agnes liked to describe it as a giant computer fused to a radiator. The other side of the room was clear except for a circular gray rubber mat and four plastic chairs.

"Don't look like much," Ramona said.

"I know. But I think I can show you how important this is." Agnes pointed at the mat. "We sit right there."

She helped Ramona from the cart and got everyone seated. Agnes crowded in behind them.

"You need to make this thing bigger," Ike said.

"That's the plan, Ike. Remember? This is just for demonstration."

"I thought it would look more like a car," Ramona said. "Like the movie, and we put it in reverse to go back in time."

"Sorry," Agnes said, her hopes for success beginning to fade. "It doesn't work like that."

"How does it work?" Ramona asked.

Agnes tried to think of the best way to put it. She finally said, "I press this button and there's a bright light and fuzzy noise and then we'll be looking through a window into another place in time."

"We end up any old place?" Maisie asked.

"No, I input the data to choose a place and time." She showed them the handheld portion of the device. "These dials can control certain variables and the button engages the machine."

"Could I press it?" Ike turned in the chair and stretched his hand out to the control.

Agnes lifted it out of his reach. "Not this time. Are you ready?"

Ramona pulled her cane closer to her body and nodded. Agnes twisted the twin dials that pinpointed the day and time, then adjusted the environmental control switches and finally moved the center wand that looked like a joystick and would place them in the right spot. She nodded at Theo. He flipped several switches and jiggled a thin gray cable that attached the device to the wall. They had programmed the device earlier, but Agnes thought a little theater might be good for the Board.

"We're going to go . . . five, four, three, two, one."

The room trembled and disappeared with a buzz and a flash of silver light.

Agnes' favorite part was how the new time location gradually came into focus. First, the pale beige lumps sharpening into distant low brown hills. Then just enough of a grass-scented breeze to stir their hair as the fishing camp became visible. Finally, something that Agnes called time dust faded and the scene came into view. Agnes had found the perfect moment. The flap of the tule-mat teepee snapped open and a woman emerged with a small child close behind. She crossed the dirt and tended the fish on the drying racks.

"Hello!" Ramona called, waving with great enthusiasm.

Ike pushed her arm down, "Stop. We can't upset them."

"It's okay," Agnes said. "They can't see."

"When is this?" Maisie whispered.

"You don't have to whisper," Agnes said. "It's 1800, about one hundred fifty years before the dam was built."

"Oh. My." Ramona sat forward in her chair. This sort of reaction was exactly what Agnes hoped for.

"We're the first modern Indians to see what life was really like before contact," Agnes said.

The vision continued to intensify and the breeze flared up and brought the stench of rotting fish. Maisie put a hand over her mouth and sagged in the chair. "You didn't say it would stink."

Agnes adjusted the environmental controls and made a mental note to take the scent down a notch before visiting this spot. For herself, she enjoyed the historical realism.

Agnes wanted to focus the demonstration on pre-contact Indian scenes, but Theo convinced her she needed to go big and flashy. She reset the controls and moved the group to a seat at the Gettysburg Address, which got barely a dull nod. She let that

scene fade out and they rode through a blue mist that gradually cleared until they were overlooking the field at Superbowl XXIX. She knew Ike was a diehard 49ers fan.

"You can do this?" Ike bounced up and down like a kid.

From there Agnes took them to a fireworks display over the Eiffel Tower from the early 1900s. The event had no substantial historical importance, but it was a nice show and all four Board members applauded when it was over.

Agnes returned to the undeveloped landscape of what would someday become Oregon.

"What do you think so far?"

"This is a great machine you made," Ike said.

"You bet," Maisie said. "I didn't know you could do all that."

"Can you see why this is so important?" Agnes watched their faces hopefully. They all nodded, too overcome to speak.

"Good. I've saved the best for last." She adjusted the controller. Once again the view faded and they moved. This time, the roar of the falls vibrated under the viewing mat before they could see the wall of cascading white water that burst over a half-circle of huge basalt boulders. The breeze carried a cool mist with it. The blue water of the river stretched out into the far distance.

Ike raised his hand and Agnes touched a dial to adjust the sound.

"Oh, Celilo Falls." Ramona held her face in her hands, her eyes wide. "My father fished right there."

A number of wooden platforms extended from the rocks and as they watched, a trio of Indians arrived with nets on circular hoops that looked large enough to scoop cattle.

"Dip nets," Maisie said. "My grandkids would love this."

The men dunked the nets in and out of the roiling pool. They couldn't speak over the roar of the water but they exchanged hand signals and laughed. One of the nets came out of the water with a thrashing fish and the fisherman swung it up on the rocks. Another one bashed it with a wooden club. The salmon measured from the ground to the man's chest when he held it up and it looked like he was showing it off for them.

"Look at that thing," Wilbur said. The other three Board members turned to stare at the uncharacteristic outburst.

Agnes gazed at the landscape. She could never get enough of these pristine views. She didn't notice a problem until Ike touched her wrist. Ramona's rounded shoulders shook and she waved her hands at the falls as if to shoo away a dog.

"Take us back." Ike had his arm around Ramona but Agnes couldn't hear what he said to her.

Agnes clicked the controller and in a flash, the falls disappeared and they were back in the lab. Theo sat at the console eating something that looked like chili out of a paper cup. He tossed it in the trash but not before Agnes gave him the stink eye.

"Back so soon?" he said.

Agnes gestured with her chin and he spotted Ramona, her head bowed, with Ike and Maisie on either side, comforting her.

Theo gave Agnes a distressed look. "I'll get some water?" She nodded and he slipped out.

"Why did you show us something so sad?" Maisie rubbed Ramona's back, her face twisted with concern.

Agnes didn't know what to say.

Ramona sat up. "We was there when they made that dam. The government promised us that fishing place and then gave my father three thousand dollars and filled it up with water."

"I know," Agnes said. "Wasn't it amazing to see it before it was destroyed?"

"He nailed that check to the wall. He didn't want their money." Tears ran down Ramona's cheeks and she pulled a crumpled tissue from her sleeve.

Agnes tried to think of something that might comfort her. "Can you see how important it is for people to see what's been lost?"

"On the last day he threw his net in the water and he never went back there. When he died my mother had to cash the check to pay for his funeral."

"That's terrible," Agnes said.

"We gotta go back and stop it," Ramona said.

"But we can't change the past." Agnes knelt next to Ramona's chair and took her hand. Theo had returned and she handed Ramona a cup of water. "The time viewer can only show us what's already happened."

"We could go back and kill those guys, Lewis and Clark," Ike said.

"What we can do is make sure history teaches the truth," Agnes said. "Even if we could change it, the world would be altered in ways we can't predict—"

"So?" The four board members gave her a serious look.

"We need to form a committee," Maisie said. "Come up with some plans. We can stop it."

"Write this down." Ramona wagged a finger at her.

"I need you to understand what is possible," Agnes said.

"Hush now," Maisie said. "We're going to get you your money. You work on this like we tell you."

Agnes pulled out a notepad and wrote down their requests. When they were done, Ike drove Ramona on the cart and Agnes followed them to the parking lot.

"This is a nice cart," Ramona said. "You coming to bingo?"

"Not today," Agnes said. "But I'd like to come again."

"You should," Ramona reached up and patted her arm. "That's where the people are."

"I will," Agnes promised.

Later in her office, Agnes spread out the notes on her desk. They wanted to build walls and send back guns and smallpox vaccinations. They wanted to prepare the ancestors with military training, agricultural advice, and advanced medicine. Agnes rested her head in her hands. They'd been so sure of her.

She pulled out a clean sheet of paper and wrote "Form Committee." Then she started her list: get on Council meeting agenda, interview elders, collect data on elder services and participation, organize demonstration. At the top she wrote: Save Bingo. ○

THE GREAT PELOFF

Coming in we saw onscreen
people pulling off tops and shirts
and we were amazed. The kids
were not so affected. Siding
on the houses and apartment buildings
was being pulled, yanked off
with a vengeance, and foam
was everywhere. Melting plastic.
As we came in much further
we understood.

Our heat-shields acted erratically.

—Qadira P. Garger



Alexander Jablovok has always lived dangerously: He used to rip the warning labels off mattresses, he's been known to consume products well past their "sell by" date, and he drinks coffee despite all notices about how hot the liquid's temperature. Alex also wrote and published a novel, *Brain Thief*, despite the warning represented by his advance. So he just may prove to be an unreliable guide to the future represented by . . .

WARNING LABEL

Alexander Jablovok

Groom should have known there was going to be trouble when even getting breakfast the first morning of his visit to his friend Wedge was an ordeal.

He looked up. Cereal tags flickered on cabinets twelve feet off the floor. The sold dates on the boxes were a week or more ago. Wedge usually ate a box in a day. But the moisture indicators claimed everything was still crunchy. Great. But how was he supposed to get up there?

Wedge's unit's maintenance overlay pointed Groom at the right spot: an aluminum stepladder in an otherwise invisible closet. He pulled it out and it unfolded itself. He put his foot on the first step.

Damn Wedge. He just had no sense.

Any ladder is tagged up with safety warnings: about that fatal top step, that near-fatal next-to-top step, tilting, excessive weight, uneven surfaces, high winds, how dripped paint can make surfaces slippery, low-flying helicopters—there was really no limit.

Wedge clearly had tired of blinking warning tags out of the way and had gotten a bootleg warning-suppression overlay to make his life easier. If he'd stuck with something like a BSmart physical consequence overlay, he would have been okay. That overlay converted standard warnings into lever arms and tensile strengths. It disguised hysteria as information, but the ladder manufacturer usually didn't notice.

Instead, Groom had gone for a sarcastic "how dumb can you be" overlay that provided additional instructions on how to balance the ladder on top of a speeding vehicle or use it for climbing from one balcony to another in a high-rise apartment building. So a tampering notice had shown up at the manufacturer, and its legal department had upgraded the safety overlay to take noncompliance into account.

The ladder seemed to waver back and forth as Groom climbed. On the second

rung he was incautious enough to look down. The roiling depths beneath promised a long fall and an agonizing death. Whatever purveyor of paternalistic paranoia had designed that overlay was a twisted genius.

When Wedge finally got up he found Groom sitting against the ladder, his head on his knees, his long blond hair hiding his face.

"Oh." Wedge glanced up at the cabinets. "I meant to tell you. But there's some left-over noodles in the refrigerator. Got to warn you, they got some hot on 'em. Great breakfast, though, gets you moving. Better than cereal, really."

Wedge was a beefy guy, much taller than the skinny Groom, with curly black hair and loose, big hands. He'd gotten his nickname from the wide-shouldered shape of his body, and the matching shape of his head. Groom had met him at a long-ago job selling humorous pickup tags to use while watching people in bars. There had been a season when they had been popular, then they weren't, and everyone at the company had gotten laid off. Groom sometimes saw someone pushing a stroller or buying mouthwash who still had an "X's Evil Twin" tag slapped on them in some long-ago pickup spot, claiming they looked like some forgotten celebrity, floating around in their unpurged identity history.

"When are you going to crack and click the safety training tag?" Groom found chopsticks and started on the noodles.

Wedge sighed. "Are you saying I should just take the climbing quiz every time I go up? Confess that I am sunk in the depravity of gravity and accept the salvation of the rungs?"

"No, I'm not saying that. I'm saying if you want help, you should ask for it."

"I'm asking, Groom. I'm asking. Please get me up to my cereal. Hey, don't hog the noodles."

The noodles were good—and spicy, as per both Wedge and the container's mandatory capsaicin tags.

Groom held the container out of Wedge's reach. "My fee. You wait for your sugar bombs."

Instead of being annoyed, Wedge grinned at him. "Good to see you again."

"Yeah." Groom blinked. He wasn't used to having the ogs in, and for an instant, reality and its overlays went out of sync. "Good to see you too."

Groom tended to go out of commission, particularly after a tough contract like this last one. He'd take out his ogs and go bareye. He'd also suppress any overlay that referred to him. Being disconnected in a large city like Boston was more isolating than being alone in the wilderness. No one saw an un-networked, untagged, uninteractive person. Even the rare people who looked where they were going would sometimes walk right into him. The tags they paid attention to were much more vivid than the reality they annotated, and whichever street navigation overlay they subscribed to, it did not tag Groom. He was just a shadow in their ogs.

Wedge knew that being a ghost somehow appealed to Groom, and worried about him. After a decent interval, he'd persuaded Groom to come over, which meant Groom had to og up, and now Wedge had found something that would make him feel useful and encourage him to rejoin the species.

But that wasn't everything. Groom could sense that there was something else Wedge was fretting about, something he hadn't yet linked his conversation to. Groom was patient. It would come.

Despite himself, Groom found he was interested in this elementary ladder warning tag problem. He now took the time to examine every tag connected to that ladder, and tracked each one back to its source.

It took awhile. Ultimately, Wedge pulled out a half-empty jar of peanut butter, and ate out of it with breadsticks.

Ogs made tags seem completely real, part of the objects they annotated. Your refrigerator just naturally spilled parts lists, maintenance instructions, where, how, and by whom it was built, the fact that the lettuce was getting soft, that the lower left drawer's humidity was alarmingly high, that putting a box of baking soda in it was actually a futile and pointless activity, the dollar cost of standing there with the door open looking for a snack, that it was designed for 97 percent efficient post-obsolescence recycling, that a decorative front panel could completely upgrade the look of your kitchen, and that you hadn't touched that bottle of barbecue sauce in six years. Your refrigerator was so chatty because, after all, you were in this together. Right?

Identifying tags with their objects was dangerous, because all those tags were out in the flow, location-linked through high-resolution positioning data and fed into your ogs, corneal and auditory. You didn't own or control them, and they could change at any time. The illusion that they were part of their object was irresistible, even to someone like Groom, whose job was tracing historical links for purposes of establishing provenance of rare, valuable, or otherwise fraught objects. When a job was over, he tried to look at reality bare, no matter how boring and inert it was, just to ignore the endless arguments over who owned what.

"Here's what you're going to do," Groom said finally. "There's a single digit difference between the catalog number of this ladder and the 20-foot version. The safety overlay won't see that change. . . ." It took him a couple of minutes to edit Wedge's home inventory. "Your usage records now show you as having been climbing a twenty-foot ladder, not a twelve-foot one. So, by your stats, you're an unusually cautious ladder climber, even a scaredy cat, never going much more than halfway up. That should give you some cred with these guys. Let's see . . ."

Cautiously, Groom took a step on the ladder. Solid. Another. There was a vague thumping noise, like music from a distant horror movie, but he managed to get up to the cereal cabinets without serious incident.

"You want any cereal?"

"Nah." Wedge threw the empty peanut butter jar in the recycler. "I'm not hungry."

"So what's your real problem?" Groom said.

"Eh? Look, Groom, all I wanted to do was see . . ."

"If I was okay. But you also think what will make me okay is an interesting problem. Now that you've warmed me up with this one, you might as well tell me what it is."

Half an hour later, Groom found himself in a windswept city park, looking up at a virtual monument to a long-vanished political figure.

"Why her?" Groom said. The woman's face and other information were invisible beneath an insane number of denunciations and error corrections. "I think my parents were fans. I remember her on the TV. But some things get old fast, and I think she's probably the oldest thing from that decade."

"That's just it!" Wedge was enthusiastic. "Everyone has made fun of her for years. I happened to be looking around for things no one's tagged for a while, and came across this . . . I guess you'd call it a statue. A site-specific created image, anyway. You can't even see it, people were so mad! Now no one pays attention. Perfect. Watch the water!"

An arching cascade swept through the circular plaza to which Wedge had hauled them. Before they could react, it was gone. The unpredictable spray of water was a feature of this bleak park, with its curving slabs of polished granite and hidden nozzles. You had to watch the overlay, which warned you of an impending soaking while trying to teach you the algorithm that governed the spray pattern.

It looked like a gentler spray was headed their way in fifteen minutes or so. This

was how kids learned to use their ogs, chasing cool water on summer playgrounds. It was fall now, and too cold for that.

Wedge's hobby was reviving once-popular things that had been forgotten. Maybe the woman who had the semi-official title of Emergency Management Director for just under a year a couple of decades ago was ripe for revival. Groom didn't know. He'd never been able to figure how Wedge spotted something ready for return. He did have a pretty good success rate. Just last year he'd brought back those crude virtual tattoos from the early days when tags and overlays just appeared on phones people carried. Updated og versions had spread everywhere, before disappearing again.

Sight of the monument itself was completely jammed, but links led to millions of other images, recordings of speeches, texts of directives. She'd been astonishingly busy, launching programs daily during that buoyant time, sending troops across the sea to enforce tolerance, rebuilding infrastructure, creating mass experiential artworks . . . In the linked images the long face under the bristled copper hair, with its high-cheekboned mix of what were allegedly African, Scandinavian, and Quechua features, was compelling, even to Groom, with his allergy to joining anything.

To the unogged eye, there was nothing here but a circle of pavement and a thin person-high metal rod. The original monument had been both virtual and site-specific, depending on IR reflections from the precisely placed slabs to manifest itself. Even now, people had an odd liking for things that appeared in only one place, as if that were somehow more authentic. Groom could see similar monuments, looming up above the rock slabs: local politicians, musicians, inventors of useful technologies. Each of these was all tagged up too, but it was easy enough to filter out a couple of graffiti and commentary layers and get rid of the tags. Commenters on the Emergency Management Director had used some seriously resistant programming.

"And you want to clean her off," Groom said.

"At least establish some usable filters," Wedge said. "I started picking at the tags a few weeks ago, but it's not just random stuff. Someone went through a lot of trouble to make sure you can't perceive her. If you could help me out. . . ."

It wasn't as if there was anything politically dangerous about the memory of the Emergency Management Director, Florina Vance. She was just reputationally toxic, even now. Those who had maneuvered her from office had been superb spinmeisters. Everyone now knew exactly how to think of her: she was an absurd mistake, and her fans had been hyperenthusiastic dorks. To touch anything associated with her was to risk embarrassment. Groom's potential clients would certainly see the connections, if they did the usual due diligence, and it might influence their decision if someone was competing against him for a high-end provenance job.

He looked at Wedge, who was smiling confidently at him. Wedge had no sense about things like this. Since Wedge's reputation depended on exhuming ancient fads and obsessions and retooling them for modern relational consumers, he didn't interpret the risk the way Groom did.

But Wedge was his friend. He deserved what help Groom could give him. And, really, who cared by this time? Even the embarrassment was old.

He got to work. Most of the tags were just random denunciations. Groom was a bit surprised that Wedge had had any trouble getting through them, and found himself just a bit annoyed that Wedge thought something this simple would be enough to make him feel useful and alive . . . wait a minute. He reached a set that seemed as random as the rest, but were actually linked together in a referential net that made it difficult to penetrate. They were so cleverly connected that you might not even know you were being led off from your original target. It was like a shell over the monument.

But they were old, from around the same time as the monument itself. Groom had logic tools unavailable at that time, which made getting through possible. Still, there was some nice work here. Groom admired it as he created filters and workarounds that would finally let anyone see the monument as it was designed. This blocking layer had gone up so soon after the monument did, it was possible that no one had ever actually perceived the thing.

"Hey, great work." Wedge had brushed dirt off the top of a granite slab that held back a flower bed and now sat on it. A couple of the rose bushes behind it tilted back, as if something had been digging under them. "I had no idea how to get through that."

Groom activated the final filter, giving them a clear view of the monument to the Emergency Management Director.

They both stared.

"Where is it?" Wedge said. "Do you see it?"

"No," Groom said. "There's nothing here. No head, no monument."

Under the warning label was nothing but a few construction notations from when the park had been laid out.

"Everyone was just commenting on what other people had already commented on!" Wedge said.

"The Emergency Management Director's real monument: geologic layers of denunciation."

Wedge slumped down on a granite slab. "It's funny. I really thought we could use a little of that spirit now. Everyone working together, a high mission, all that. We've been embarrassed by it long enough. But I guess she shook things up enough that some people never want it to happen again."

Groom should have felt nothing but relief. He'd helped his buddy out, but escaped negative reputational consequences: the good-parts version of friendship.

But he found the missing monument worrying at him. Because Wedge's immediate conclusion was wrong. It was clear that the damn thing hadn't been removed right after it was put up. That tag net had been linked directly to the underlying programs that displayed the monument. He was sure the monument had been removed only recently—probably only since Wedge's messing around had revealed that someone was going to try to revive it.

That was the kind of thing that really got Groom working.

"Someone's taken out the actual monument, but they couldn't have gotten rid of all the information it linked to," Groom said. "For example, the monument seems to have commemorated an actual event that happened somewhere around here, a speech Ms. Florina Vance gave long before anyone even thought of the office of Emergency Management Director, before she was even on the City Council, when she was just a community healthcare activist. It's just a chance, but if I work my way out along any links from the event itself, I might get us somewhere."

"I don't know if it's worth it, Groom," Wedge said. "I mean, I was just hoping—"

"You wanted to get me involved in something? I'm involved. Let's find out what happened to the image of our beloved disgraced leader."

He sank into the tags. A fine spray wetted him, but he no longer paid attention to that level of information.

What Groom perceived instead was a thick impasto of random observations, each one unexceptionable: a discussion of the cracked sidewalk here; an essay on a drain that explained where dumped toxics would end up, complete with flow diagrams that eventually linked up to some pre-colonization watershed data; historical markers with the places of the first foundations, birthplaces of people who had successful law offices, locations of homes of people of various politically significant ethnic

groups; and a variety of yard sales, lost pets, food drives, Christmas tree disposal instructions, and block parties.

Then, a park with spindly trees that were always dying. Arborist work orders. Schedules of neighborhood events: ethnic food festivals, craft fairs, outdoor poetry readings, candlelit vigils for local dead youths, Easter egg hunts, prayer meetings. Photos, photos, photos galore, seemingly one taken at every angle from every possible location on it, of crowds, of kids standing in squinty-eyed array, of attractive young women drooping out of misadjusted clothing, of maybe-famous people in three-quarters rear profile linking to ear shape databases for confirmation.

It was just too perfect. It was like when someone was asked to mimic a random flip of a coin . . . and avoided long runs of heads or tails, thinking that seemed more real. Surely no part of lived reality was as free of narrative as this was.

He'd been standing in one place for half an hour now, looking through it. His lips were cracking, his throat dry.

Something prodded his lips. It was a straw, held out to him by Wedge who, after all, knew exactly what to do. Groom sucked down the lemonade, and kept sucking until the cup was empty. He didn't move. He didn't want to lose his concentration.

The speech was missing too. Incredible. Someone had gone through a lot of trouble here. How could they have gotten rid of the mass of hostile tags that must have been stuck on even this minor early speech? Florina Vance had given it at an event to celebrate a new wing on the health center.

More tags: girls commenting on each others' hair, boys saying the hair looked okay with them, detailed references to what the boys and girls had done the night before, which was comment on what had happened at school during the day. . . . Ogged reality contained a density of experience that was impossible to comprehend. No wonder people typically filtered out most tags, paying attention only to those left by friends or related to current celebrities.

Groom found himself examining park cleanup instructions: trash receptacle locations, pounds-per-square-inch pressure specs for cleaning hoses, portable toilet load point stacking details . . . not from the health center celebration, but a concert by some revival band, a few weeks later. Who cared how portable toilets got put away after those hairy guys sang their last encore?

And, finally, he found her.

Florina Vance stood on the steps of the health center, a young woman, not pretty, made for being seen through a multiplicity of media, with strong bones and the ability to look directly at you, no matter where you were. She was usefully ambiguous in her ethnic look. At this event she wore beaded braids. She'd soon dump those in favor of a skull-emphasizing buzz cut that varied its color depending on the event.

Vance was already saying the things she'd later be known for saying: Groom could be whoever he wanted to be, and she would help him become it. As he listened, Groom believed her. He could almost feel her hand on his shoulder. He could see why people who liked keeping things a little more under control might be uncomfortable with her.

There were a lot of people around, but most were there for some kind of festival, and to eat ribs and papusas and catch up with their neighbors. Almost no one was listening.

But among those who *were* listening were a couple of operatives from the national party, desperate for someone who could catch some attention, no matter that she was only the second-ranking administrator in a local health center. They saw the star quality. These same operatives would later arrange for her overthrow, and the elimination of any kind of personality in power, but right now their notes were enthusiastic. And there was an activist, someone unknown to later history, making a record-

ing for post-speech debrief from where she stood. This was someone with an early connection to the woman who would become the Emergency Management Director.

Then Groom found himself having tag problems again, as he searched the personal histories of those who had heard the speech. Nothing led to the right place. Each person's links seemed to be someone else's. There were always mistakes, but he'd never seen it this bad.

He was overwhelmed by a blast of white noise, and then freezing water cascaded down his neck. For a second he didn't even know what he was looking at, out here in what passed for the real world. The air roiled, distorting everything.

"What the hell?" Groom yelled. "Wedge!"

"I'm sorry, Groom." Wedge said. "She startled me when she started up her fryer."

A menu and a health inspection tag clicked Groom in: he was looking at a mobile food cart. Hot air rose from its glowing griddle. The owner, a chunky Asian woman named Chenda San, popped a few sales coupons into his visual field. There was another blast of white noise as she threw lotus root slices into the hot oil. And the cascade of water . . .

Wedge had been standing next to him the whole time, holding an umbrella over his head. Wedge dripped from the just-passed shower, and his black hair was plastered to his forehead. He'd raised the bid price for an umbrella high enough that a vendor had wandered into the park from elsewhere and sold it to him.

"Sorry, Wedge." Groom was contrite. Wedge had been doing his best and didn't deserve to be yelled at.

"Don't worry about it." Wedge tugged him out of the way of an arching spray from somewhere on the park's other side, and toward the food cart. "Are you hungry?"

"You know it." Groom pulled his thin blond hair off his face and tried to straighten himself out, while Wedge approached Chenda San, the food cart vendor, and ordered.

She immediately went to work on a Fish Farmer's Fury. She chopped squid, octopus, bream, and cuttlefish, all with beautiful promotional images of suns settling over water and trees only partially concealing the more industrial pumping and filtration images that were required by food regulations. Inspection certificates, bacterial assays, and the times the scurrying harvesters with their huge skimmers had punched in at the hand washing station were all available, but Groom was too tired to dig through them.

Chenda then seared peppers, onions, green beans, and squash. Data on heat-induced breakdown into dangerous radical compounds mocked the antioxidants in the raw vegetables.

Why were those irrelevant connections so clear, while those at the speech were so confused?

But, wait . . . That early associate, the one taking the official recording of the health center speech for later review. The recording she'd made was missing, but she had a lot of sightline notes, as well as irritated notations about people who had promised to show up but hadn't. Those were still there.

And she'd come back to this layer of the past and added comments at a later time. "Murchison's been claiming he was here that day, but I can see that he wasn't. He thinks no one will actually check. And, hell of it, he's right." And one, a bit later: "Look at the conservative top I picked! To think what I could have carried off back then. . . ."

"I thought you were taking a break." Wedge held out a plate of steaming noodles.

"I only have one thread," Groom said. "If I lose it, we've got nothing."

"What?" Wedge said. "Who?"

Groom flicked him the tag. Margaret Dunster. Despite being a fierce loyalist of the Emergency Management Director, she'd given up on the movement relatively quick-

ly after the removal. For most of the past decade her interest had been gardening. Deep layers of tags here: rare varieties, soil pH, a philosophical debate about what was a weed and what wasn't. She had quite a reputation going.

While Wedge looked, Groom ate. Chenda San really did make a mean noodle. Her powered cart was already on its way to another sales location.

A transportation map showed that Margaret Dunster was a quick subway ride away from where they stood. She was a bit less diligent about updating her status than she should have been, but it looked like she was home, taking advantage of the clear fall day to finish cleaning up her garden for the winter.

"It's been a long time since I've had any trouble." In person, Dunster was a striking woman of about sixty, with dark blue eyes. She looked up at them from where she knelt in her beds, putting in bulbs, but did not look intimidated.

"No trouble," Groom said. "We're just doing a little historical research."

"That's the worst trouble of all." She stood up, took off her gloves, and brushed off her knees. She was tall, and looked way down on Groom, and even down on Wedge. She kept her hair tucked under a wide straw hat.

"It's the head!" Wedge said frantically. "I was trying to clean the graffiti off the monument. You know—"

"I know." Dunster looked up and down the quiet street, an older person's gesture: no one younger than middle age thought that what was visible physically conveyed any useful information. "So, what will it take to get you two the hell out of here?"

Wedge must have expected to be greeted like an old friend. "I . . ." He turned to Groom.

"Someone's pulling tricks with the Emergency Management Director's monument," Groom said. "It's missing. Wedge here is after inspiration. Me, I just don't like censorship."

"I don't believe either of you." She turned her back to them and pulled off her hat, revealing close-cropped silver hair which she fluffed with her fingers. "But you'll be worrying me until you get something you can accept as an answer, so come in."

The small house was clean and spare, with only a few pieces of square furniture.

"I don't have anything, like lemonade. Or even tea. I don't have a lot of people over. You can pour yourself some water, if you like."

Wedge and Groom sat down on a couch that looked comfortable, but turned out to be as hard as a wrestling mat.

"We tracked you from your attendance at the health center speech on—" Groom said.

"I know when it was. You don't think I put an alert on that? I knew as soon as you looked at my little style comment. For some reason, that's the kind of thing people pull up." She sat down in a metal folding chair that didn't look any more comfortable than their decoy couch. "I was with Florina when she was just running for City Council. She was incredibly young for a candidate. I knew her parents. Silly, right? Throwing in with some kid barely out of high school. But she was something, even then. She moved up fast. I thought I'd stay in her inner circle, since I'd been there from the first, but sentiment was never her weakness. She found people with specific skills, but didn't keep using them when the skills were no longer necessary. I was soon just another member of the team, and then out of it completely."

Despite Dunster's apparent reticence, she'd told versions of this story before. At least five people had noted her oral history, and annotated it in various degrees of detail. One, someone with some skill, had linked each episode to other records of the events she described: photographs, videos, news reports.

Dunster must have been either tiresome or intimidating when young: big fea-

tured, gawky, never indicating doubt, physically stronger than she had a right to be. Age had slowed her down enough to make her tolerable.

"It was an incredible ride, from City Council to Mayor, to Governor. Way too fast, I can see now. But at each point, the party needed her at a level of prominence above. She fulfilled so many people's needs, and there was no one else available. Every possible competitor had been accused of corruption, had slept with someone on their staff, or had pardoned a criminal that went on to murder someone. She seemed immune. Then came the disasters, and the emergency decrees swept her up to the top. None of us could believe it. A dream come true, that dedicated little activist finally with the power to get things to work the way they were supposed to.

"Is it any wonder she got a little out of hand? The national infrastructure work corps. The liberation marches. But then came the intervention in Tibet, the budget catastrophe, the mass manager strikes . . . Operatives were behind those, orchestrating them, we all knew that, but there was no way to bring those guys out into the open. She was finally forced to resign.

"She seemed . . . not happy to go. Relieved, maybe. She'd never really had a life. Single, dedicated, working fourteen hours a day. So she left, married that Tyrel who no one took seriously, moved to Chicago, had three kids, and started a home insulation business. Every so often she calls a tag conference. She's careful to be absolutely as boring and off point as possible. No one pays any attention. All you really need to hide in plain sight is to seem to want to be famous, but not be good at it.

"I'd been out of it for a while then, but I still felt like I had lost something. The night she resigned I got drunk with a guy. He listened to me cry and then I let him do what he wanted. It seemed to make a kind of sense. We'd lost pretty much everything, but it was like none of it had ever happened. Amos. I haven't thought of him in years. But I picked up gardening from him. Whatever his other problems, he was a good man with a plant."

Groom could see Amos, or rather his post-mortem memorial, nicely put together by his second wife and his stepdaughter. He'd died just a few years before. A poignant timelapse showed what happened to his garden once he was no longer around to take care of it. Year by year it faded, as perennials came back more sparsely, and plants eventually died. Eventually, it was just a square of weeds. Dunster had looked at it regularly, but had never left a tag on it.

"So do you know what happened to the monument?" Wedge asked.

"Oh, it's under there somewhere," Dunster said. "You just need to get all the nasty crap off."

Wedge looked at Groom.

"We did that," Groom said. "There's nothing underneath. It's completely missing."

Dunster stared at him. For the first time he'd startled her. "That can't be! How could someone . . ." She thought. "Anything happen to the other two monuments?"

"Who?"

"There are two other monuments right there, a labor leader and an inventor. No one pays much attention to them, but some city council resolution put them there. I think it was to make absolutely sure no one would show up at Florina's marker by mistake. They're about as boring as you can get."

Groom was already scanning their references. A nineteenth century mill organizer, with her hair in a severe bun, and a twentieth century camera inventor holding his invention over his head in triumph. They were named in the park's reference list, and on any number of school syllabuses. Even information in plain view was useless if you didn't know to look for it.

"That space looked completely blank," Wedge said. "I had no idea there was supposed to be anything else there."

"Oh, there's something there all right." For the first time, Dunster smiled. "With a little work, I'm sure you'll find it. Do you have a lot of people following this?"

"No," Wedge said. "I mean, we wanted to have something before we got a lot of followers."

There was something appealing about the tall older woman, and Groom found himself wanting to please her. Wedge's reluctance to get publicity was quite unlike him.

"We'll get the word out," Groom said.

"A lot of old movement types will certainly be interested. But please go now. There might be a frost tonight, and I want to get the rest of the bulbs in."

"I can't believe it," Wedge said as they got back to the park. "That poor woman . . ."

"What?" Groom said. "Who?"

"Margaret Dunster." Wedge was surprised. "The one we were just talking to?"

"She seemed perfectly happy to me. Why should we feel sorry for her?"

"Why, she's lost everything that meant anything to her. All reduced to historical footnotes and jokes. It must be miserable."

Groom didn't get that sense, somehow. Dunster had moved on. Some people had that ability. Still, she seemed to want them to find and uncover the Emergency Management Director monument. Maybe he was supposed to think that she had some of that old feeling left, but he thought she was actually up to something else. What?

The other two monuments in the Emergency Management Director's spot were definitely missing. Now that he was looking, he could see their own swarms of tags, mostly notes to school groups about historical context, and a few rude responses from students about what their subjects looked like or probably smelled like.

Wedge sat down and frowned. "You know, these slabs have been shifting lately. Frost heaves or something."

"Maybe. But look." Groom pointed at the dirt he'd noticed earlier, and the tilted roses. "I think it's more recent than last winter."

No one had tagged the slab or the roses. They were just there, visible, and so hadn't caught their eye.

Groom examined the specs for the pole that oriented the monuments. Its IR beams bounced back off its surrounding to create the site-specific sculpture. If the surroundings changed, it was no longer defined as the same site.

"Someone moved these," he said. "Just far enough to disrupt the processing. We can't fix it, not without more muscle than we have, but we can do something temporary . . ."

He tagged up the spots that would need to be shimmed out to reflect the infrared back properly. Wedge went off and swiped a trellis from a planted area nearby. They took it apart, and slid slats into the proper spots, moving them back and forth to approximate the original slab placement. It took a couple of hours to get the measurements right. By the time they were done it was getting toward evening, and growing colder.

All three of the coextensive monuments flickered back into existence. The first was bulky middle-aged woman from the 1840s, with most of her hair in a bun, but the rest swirling around wildly. Someone had imagined her voice as a stentorian bellow. The second was the inventor from the 1950s, a middle-aged man with half glasses. He was a nice piece of work. Though three-dimensional, he seemed to constantly be developing on one of his experimental emulsions, seeming to get clearer and more defined but never actually getting there.

The third . . .

"What's *that*?" Wedge asked.

They could see the sober, almost beautiful face of the Emergency Management Director looming above them, but in front of it, blocking its details, was a message: "Warning: this movement contained seductively oversimplified solutions to complex societal problems. Support for this contention available [here](#)."

Underneath was a series of statistics, simulations of financial flows, quizzes, and informational snippets, all leading to the conclusion that the Emergency Management Administration, despite its revolutionary rhetoric, had entrenched existing interests and deadened innovation.

"Man," Wedge said. "This will take forever to get through. How did we miss this the first time?"

"It wasn't here." The tags had a familiar style. Groom dug through the data cascades and the linked tags. There were any number of choices you could make when doing an overlay like this—and the choices made here were similar to the ones in the tag net he'd removed just that morning. But in this case, it was brand new. And it was incredibly hard for him to maneuver through. He might have thought it had been designed specifically to take advantage of his cognitive weaknesses. The blocks had been moved to give someone time to put this up.

"Jeez," Wedge said. "I'm starving. How about some noodles? Chenda's around here somewhere."

"No more noodles!" Groom said. "We had them for lunch and we had them for—wait! Wedge."

"What?"

"You got those noodles in your refrigerator from that same cart. Right?"

"Yeah, sure. Chenda knows what she's doing."

"I'm sure she does. She was there, right? When you were checking out the monument the first time."

"Have you looked?" Wedge said.

"No. I've got a hypothesis, and I'm making a prediction. You take a look and see if I'm right."

Wedge gave the question his full attention. He pulled up surveillance images of what he had been doing and reviewed whatever messages he had sent during the period he was trying to uncover the monument. He also ran back streetfood data and accounts for the past few months, to establish a baseline. As he found relevant ones, he flipped them over to Groom.

Chenda San's usual territory was up Charles Street, at the base of Beacon Hill, and over near the river. But within twenty four hours of Wedge's first inquiries about the monument she'd refiled her streetfood licenses and repositioned here, to City Hall Park. The first time Wedge tried to remove the netted tag graffiti, she was right behind him, and even sold him noodles when he got frustrated.

The night after that, someone had moved the granite blocks a few inches in various directions. A little read back on the specs for her cart revealed that it had a motor somewhat larger than what you would have expected. Maybe Chenda just liked high performance, or maybe she sometimes had a need to move heavy objects.

And she'd been right here this morning as Groom performed his investigation of the concealed layers surrounding the speech on the health center steps. Somehow she'd tracked what he'd done, what he'd looked at, probably by a direct read of his pupils combined with known tags. And now she was in the area again, as he tried to get through this new net.

"She's been gaming us while providing us with high-quality noodles," Wedge said grimly. "You'll never get through if she's around to update it. It's time for some real political action!"

"What are you going to do?"

"Get some of my folks together. We haven't had anything fun in months. It shouldn't be hard to get everyone out of their holes. I'll get Chenda San out of the way for long enough for you to scrape off her stupid quiz and get to the monument."

"Wake up, Groom!"

Wedge was shaking his shoulder.

"What?"

"Our opening's narrower than I thought. We've got to roll."

Groom managed to get to his feet. He was still wearing his shoes, he noticed. They were soft shoes, almost moccasins. Still, he usually managed to get them off before falling asleep.

"Oh. Ow." His head spun, no matter how hard he pushed his feet into the floor.

Three days of denial of service attacks on Chenda's lunch cart had been successful. Her supply chains had been disrupted. Her pollock was in Portland—Portland, Oregon. Her tuna had been left out just long enough to develop an illegal concentration of bacteria. A delivery vehicle had backed over her bags of noodles. Her bean sprouts were lacy with mold. The health department was checking up on evidence of cross-contamination between her prep area and sterilization station. Each individual attack looked like chance, and was almost impossible to trace, and each one was easy enough for Chenda to set right. But together, they had put her out of action.

So last night everyone had gotten together to celebrate. Groom had noticed that as soon as there was the prospect of a party, most of the organizational juice had gone to organizing that, rather than continuing the now-tedious deniable attacks.

It had seemed only polite for Groom to join in.

"Come on!" Wedge said. "You can feel bad on the way."

The street was bleak and bright and way too early. They shuffled quickly toward the park.

"What happened?" Groom said.

"Chenda's smart," Wedge said.

"We knew that."

"Yeah, well. The problem with knowing someone's smart is that you still can't tell what they're going to do."

"So what *did* she do?"

"She's been protesting every move, lodging formal complaints with her suppliers, reworking her menu, the kind of reactive stuff you'd expect. Wait." Wedge ducked into a doorway. He came out a few seconds later, looking shaken, but with no coffee in his hands. "It's worse than I thought. While we thought she was just flailing, she was doing something really sneaky. Each time we interrupted a supply chain, she turned around and extended that interruption, rather than just trying to resist it. I mean, we should have been more careful, I admit that."

"No coffee?" Groom asked.

"That's just part of it. Fish deliveries got locked up, not just for her, but for everyone. Fish that's supposed to be landing in Boston is piling up in Vancouver and Tegucigalpa, and so plummeting in price there. There isn't a spice hotter than cinnamon moving out of the food distributors in Chelsea. Train cars of wheat flour are standing on sidings in North Dakota. Every food cart and storefront in Boston has lost access to its suppliers. And, yes, coffee supplies have been interrupted. That place was selling only to known customers. It might get savage."

Now that Wedge said that, Groom realized he hadn't seen a cart since they'd left Wedge's apartment. Usually there was a cluster of them down by the subway station, curling flapjacks around sausages and slinging steaming cups of congee to sleepy commuters.

"I'm almost through the overlay," Groom said. "Just a little bit more work . . . then you can let stuff go."

"Groom! Every food cart in Boston is going to be after our asses now! Chenda made sure that any trace leads back to one or another of us. To me, Groom. My fingerprints are all over it. Maybe those guys at the coffee shop *knew*. I might never drink coffee in this town again."

"You have to stand down immediately," Groom realized.

"We already are! We have no other choice. People will find out who's responsible and hang us from lamp posts. You don't mess with this stuff. And I'm hungry, Groom. I'm really hungry. And my head hurts."

"Your head?" Groom thought. "Where's Chenda now?"

"She's down at the health department, arguing things out. But she'll know by now that she's back in the clear."

"I'll finish opening up our Emergency Management Director. Meanwhile, you do whatever you need to do to find us some coffee."

"Go ahead," Chenda said behind them. "I think we're all ready for it."

She didn't have her cart, and was dressed in an elegant cheongsam with a high neck. She was a bit heavy for it. She looked at the remains of her informational barrier, now ready to be stripped off. "Quick work. Impressive."

"Are we under arrest?" Wedge said bleakly.

"You damn well should be!" Chenda snapped. "You and the rest of your supply-chain terrorists. That was a beautiful piece of tuna you turned into toxic garbage."

"I . . ." Wedge clearly wasn't used to being confronted by the actual victims of virtual mob action. "I'm sorry. But we had to—"

"Save your childish self-justifications for your generic anti-authority action buddies. And you!" She turned to Groom. "I thought better of you, at least. I thought you'd be interested in adding information, not subtracting it."

"I *have* added it. You're the one who was so afraid of real information that she blocked it."

"A warning label on a public nuisance *is* real information. It represents encapsulated experience. You were a kid then, you don't really remember. Mass rallies, forced export of democratic institutions, every person a sibling without rivalry—it all seems like good fun, until your society locks up." She looked back up at where the Emergency Management Director would appear. "She once had the power to move people. I guess we'll just have to see if she still does."

Groom followed her gaze. There was something odd about the underlying monument, something he hadn't figured out yet.

"But you're not going to arrest us," Wedge persisted.

"For heaven's sake, I don't have the authority to arrest anyone," Chenda said. "Don't you know how things work at all? Once she was gone, and no one needed sly political operatives like us anymore, we all got purged too. That's just the way things work. Who wants a bunch of active regime changers eyeing an unstable interim government? That was the end of that whole heroic era. So a lot of us went into food service. We trade recipes. And, believe me, we're all mourning that tuna. Just try getting a burrito next time you're in El Paso, see how far you get."

"I said I was sorry!" Wedge said.

"Sorry' don't maintain margins, sonny." She turned to Groom. "Well, what are you waiting for? Let's get that genie back out of the bottle."

There was a huge uptick in people who, all of a sudden, wanted to see the monument to the Emergency Management Director unveiled. Way more people, Groom realized, than if Chenda had just allowed Groom and Wedge to clear off the monument

unmolested. Wedge could never have arranged for such a spectacular marketing hook on his own.

No matter what she said, Groom could see that Chenda wouldn't mind re-energizing her base with their old charismatic political opponent. Never mind that the real Florina Vance now had a family and ran a business in Chicago, with no interest whatsoever in combat politics. The fight could just go on without her.

Groom looked at the monument suspiciously. Something was definitely wrong.

"Could you do me a favor?" he said to Chenda. "Can you dig through this stack of tags here?"

"You think I'm falling for some kind of informational booby trap? No thanks."

"No booby trap. But I don't think you'll be the only one who's surprised by what we find."

Chenda frowned as she worked through the tags attached directly to the monument, which had been invisible under the warning label. "Hey!" She opened a tag for Groom and Wedge. It was a soft drink upsize coupon from a bankrupt fast-food chain.

Yanking that tag set off a cascade. Someone clever had been at work here—someone even cleverer than Chenda. A head appeared, but it wasn't exactly the head of Florina Vance. This one wore tiny blue glasses and a baseball cap with a hamburger on it.

"The Emergency Burger for that *Emergency Hunger!*" it bellowed.

Groom was too stunned to laugh. "Someone used the Emergency Management Director to sell hamburgers?"

"With a side of wasabi fries, it looks like," Chenda said. "People did all sorts of things with her image right afterward, but boosting fast food sales wouldn't have been my first choice."

Groom examined the advertising head more closely. "You know, this doesn't seem like it's really trying to move product. Doesn't have the polish someone with a profit orientation would bring to it. More a garage hobbyist look. And there's no such thing as a garage hobbyist fast food chain."

He could hear the altered sound file of a rally: "Together, we can achieve truly crunchy breakfast cereal!"

And the crowd: "Crunchee! Crunchee! Crunchee!"

"Or garage hobbyist breakfast cereal!" Wedge said. "Those things rely on network effects to taste good."

Chenda didn't find it funny at all. She stalked tensely around the head, then whirled and pointed.

"You!" she said. "Did you know about this?"

Margaret Dunster strolled into the park. Instead of stained coveralls she wore a light jacket and narrow trousers that emphasized the length of her limbs.

"Know about it?" Dunster said. "I did it."

"You . . ." Chenda was stunned. "You mocked your own leader like that? Just to make some money?"

"No money. Groom here is right. It looks like a fast-food icon, but there was never any marketing muscle behind it. We did open a couple of locations, but they did lousy business. It's harder than it looks." After brushing it off with a handkerchief, Dunster sat on

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a granite block—then glanced down at it. “Who’s been moving these things around?”

“Never mind that! What were you after?”

“Making sure it never happens again. Unlike you, I don’t have a secret sympathy for charismatic politics.”

Chenda examined the smirking eyeglassed head of the caricature Emergency Munching Director. “This was underneath the warning label the whole time. You manipulated it right when it went up.”

“It was childish,” Dunster admitted. “I was disappointed. She just quit. I lost my passion for it all, and wanted everyone else to lose theirs too. But it was supposed to come out right then. Instead it got buried underneath warning labels and just sat there waiting all these years. I think it’s held up pretty well, don’t you?”

Groom could see the way the mock monument had knocked the props out of any looming sectarian struggles. Viewership fell like a stone.

“These boys were just interested in showing some political commitment,” Chenda said. “You shouldn’t mock their idealism.”

“So effects don’t matter?” Dunster was outraged. “Just the intensity of your feelings?”

“We’ve got the bun, we’ve got the sausage,” the head proclaimed. “Our wurst is filled with passionate intensity!”

“Maybe rational argument is useless,” Chenda said. “But I’m pretty sure this guerilla theater isn’t going to change anyone’s mind either.”

“I just wanted to sow some doubt,” Dunster said. “I gave up my youth to certainty. If I were to give advice to you boys, I’d say: worry about making somebody happy. One person, somewhere, who needs help. Do it today. Don’t worry about joining a movement to do it.”

Groom looked at Chenda. “What are you going to do now?”

“I’ll struggle against infective social movements, but all I can do about outbreaks of corrosive cynicism is keep my head down. Now, excuse me. I’d offer you some food, but my suppliers were a bit remiss this morning.” She stalked out of the park.

“Shoot!” Wedge looked after her. “I’m starving, Groom. Really starving.”

“I hope you don’t feel you wasted your time,” Dunster said.

The face, Groom knew, was an unreliable tag. Designed to involuntarily reveal emotion as a way of allowing people to make credible commitments, it was always hacked. Still, he thought that, despite what she said, Dunster missed what she had had then. Linking to other people was what the mind was for. To point out that their charismatic mass movement had led to bad policies was to misunderstand the whole point of political coalitions. Intrusive laws and regulatory agencies were just what passionate political commitment left behind, like trash after an outdoor concert.

“Not at all,” Groom said. “It might give me a chance to learn something about gardening.”

Dunster glanced at him, startled, then smiled. “You really don’t seem the type, Groom. At least find a plant person who’s more your own age.”

Groom watched her walk away. She had a loose-limbed gait that was oddly attractive, given that he had never favored tall women.

“What now?” Wedge said. “I was hoping to find some movement to resurrect and rerelease, but, to tell you the truth, this burger thing isn’t much to work with. Old consumer products have been the most popular thing to resurrect, and most of them have been done and done. I’ve revived the memories of the revivals—remember how much fun it was when we made Moxie popular again?” That’s as much recursion as I can take. I think I’ll just leave this thing for kids to play with. I’m sure someone will have fun with it.”

“There must be food somewhere,” Groom said. “But no noodles.”

“Fine,” Wedge said. “No noodles.” ○

THE WITCH, THE TINMAN, THE FLIES

J.M. Sidorova

Julia Sidorova has a Ph.D. in molecular genetics and works as a biomedical scientist at the University of Washington, Seattle, studying the many things that can go wrong with human cells. The rest of the time she writes fiction. Julia began writing and selling stories in Russian (her first language) in the late nineties. Since then, she has been switching to English. The author attended the Clarion West Writers Workshop in 2009 and her English short fiction has appeared in *Eclectica*, an online publication. Her new story about adaptation in a hostile environment is her first professional sale in her adopted language.

Once upon a time long ago, Nina used to be an eight-year-old girl who lived with her mother and stepfather in a house that stood in the middle of the Red-City, the capital of the Hammer-and-Sickle Empire. The house—an old aristocratic edifice that had been sliced and spliced into a tenement—looked onto a small dusty park of poplars and lindens with a pond in the middle. There was a tablet by the pond that said it was The Pond of Pioneers (i.e., Communist boy- and girl-scouts) but everyone called it The Pond of Patriarchs (i.e., Church Fathers). That's why Nina used to think that there were occasions when the word *pioneer* had to mean *patriarch*. Words were mysterious, after all. For example, why did they always say *Hail to comrade Stalin*? Did they think it was good for comrade Stalin to stand under a down-pour of ice pellets?

Nina liked the pond of Pioneer-Patriarchs in winter when there was skating and in late spring when the air was ticklish with poplar cotton and honey-sweet with linden flowers, and the pond-water smelled of rain and not of rotting duckweed. She did not like the pond in summer because that's when they brought chain gangs of German POWs to lay pipes along the street nearby, and Germans were confusing. On the one hand they were scary and bad. On the other hand they begged for food and when she threw them her fried egg-on-rye sandwich they fell on their knees to pick it up from the mud, and it was very, very sad.

German POWs or not, Nina could not spend as much time out by the pond as she wanted because she could not run and play with other kids. She would get short of breath and blue-lipped—she had a *heart murmur*, and kids did not like kids with

murmurs and blue lips. Nina found it hard to understand why anyone's blood would *murmur* when it sneaked through the heart the wrong way. Maybe there was something sinister about her blood, as if it was muttering under its breath like those villains on radio shows for children. Why else did Nina's mother say that Nina's heart was bad when she was upset with Nina?

Nina's mother was a geography teacher. Nina's mother said she hated teaching and she hated the children whose empty heads she had to fill with place-names that could and should have been figments of someone's fickle imagination. Zanzibar. Saudi Arabia. Papua New Guinea. On the other hand, Nina's mother also said she loved children and teaching—just the way she said it about Nina's stepfather.

Nina's stepfather was a part-time drunk and a night guard at a shoe factory. He said that Nina's mother had ruined his life and that he had been spying in Persia before the Second World War. He had his drinking to show for the former, and the Persian dagger and rug for the latter. He wore a leather trench coat. He forbade Nina to call him Father. Once, Nina believed her mother when she said she hated stepfather worst of all in the world. Mother looked so sad. Nina took stepfather's Persian dagger and sliced up his trench coat. But then Nina's mother took her words back, while Nina could not take back the slits and cuts in the coat. Nina's mother punished Nina with stepfather's belt. This was more confusing than the German POWs.

The three of them lived in an eighty or so square foot room. Nina did not like to stay in that room when stepfather was around.

The room they lived in was one of the three rooms in an apartment. The apartment also had one greasy kitchen, one musky bathroom and one dark hallway—these were shared space. The second room was occupied by the Petrov family; he was a truck driver, she, a meat packer. Mrs. Petrov enjoyed an exalted status: she had access to an endless supply of sirloins and tenderloins she bartered for favors or sold for money. Meat cuts were not just currency, they were the language of emotion. Nina's mother would buy tenderloins with her puny teacher's salary and feed them to Nina's stepfather whenever she feared he would return to his first wife. Mrs. Petrov on the other hand, would hurl raw sirloins and rib eyes at Mr. Petrov when he allegedly failed to pull his part of the weight that was their marriage. The Petrovs lived in a room bigger than Nina's, but it was only appropriate, given the tenderloins. Mrs. Petrov had visionary dreams about moving to the room next to them, the biggest.

The biggest room was occupied by the single woman whom Nina's mother called the Wicked Witch of the West. Nina did not quite understand why. The Witch was tall, had heavy hips and walked somewhat like a duck; she wore a brown dress and kept her fluffy salt-and-pepper hair pinned into a bun. She did not look like a witch. But maybe her being named the Witch was like *hail to comrade Stalin*, or like the pond of Pioneers that were Patriarchs.

Nina's understanding of wickedness and witchery was shaped by children's radio shows. On the radio they enacted *The Wizard of Oz*, where Dorothy and her friends freed the munchkins from the capitalist oppression of the Western Witch while the Wizard hid behind his veil of green envy and deception and invented lies and theories, like Leon Trotsky in exile.

Of Dorothy's friends, Nina liked the Tinman best of all because he had an even worse congenital heart disease than Nina but he managed it. Nina wanted to be the Tinman. And she wanted to have retractable blades in her arms so she could walk in between her mother and stepfather when they had one of their fights. She wanted to stand there between them and slide her blades out and say, "Quiet now!" and this time they would listen. From a certain point of view, even the Wicked Witch of the West was not as bad as her mother and stepfather's fighting.

But perhaps the Witch was indeed a witch because she attracted house flies. That's

what Mrs. Petrov said and demonstratively hung flypaper everywhere in the kitchen. On the other hand, she also said that the Witch birthed these flies out of her Jewish uncleanness. On those occasions, Nina's mother, being an educated woman and a teacher, accused Mrs. Petrov of illiteracy and said that nobody, even Jews, can birth the flies. Nina's mother said instead that the Witch brought flies from her work.

Nina could not fathom what kind of work would involve birthing flies, or what was unclean about the Witch. The Witch often smelled of sourdough and something sweet and burned, as if at her work she stewed raisins. Raisins were a treat; Nina rarely got to eat them and she did not mind the smell, even burned. Whatever the Witch's work was, it took long hours: the Witch was rarely home, even on weekends, rendering Mrs. Petrov's expansionist dreams all the more vivid.

That's why, when, once upon a time, the Witch came home from her work very early, Nina was surprised. Nina was sitting in one of her legitimate hangouts outside their room—under their family's table in the kitchen. (The kitchen was for cooking, not eating. There were no chairs and tables were places where one prepped food and kept pots and pans.) From her low vantage point, Nina'd been watching Petrov's beef and potato soup boil—a towering monument of a pot on a high pedestal of a gas stove, burping luscious meaty steam and grayish-brown froth from under its lid.

The Witch filled up a tea kettle and put it on the stove. She started when she saw Nina. "What are you doing under the table?"

"Sitting," Nina said.

"Oh," the Witch said and left the kitchen.

In due time the kettle boiled but the Witch did not come for it. When the kitchen window steamed up, Nina decided to call upon the Witch. She went over to her door and knocked. The Witch opened. Nina said the kettle was boiling. "Kettle?" the Witch said. Then, "Oh, of course." She walked past Nina, closing the door tightly behind her, and headed for the kitchen. She then quickly returned, empty-handed. Nina was still by the door. The Witch considered something and said, "Nina, can you do me a favor?"

"Okay," Nina said.

The Witch said in barely more than a murmur, "Can you climb under the table in my room and look if there is anything out of the ordinary down there?"

Nina nodded.

"If you see something out of the ordinary," the Witch continued, "don't say anything, just write or draw it on a piece of paper for me, all right?"

Nina nodded.

The table in the Witch's room was round and covered by a long heavy tablecloth with tassels that swept the floor. Nina crawled under it on all fours. She shifted to sit on her butt, cross-legged. She waited for her eyes to adjust to the darkness. She liked it under such a nice table, safe and covered from all sides.

But then she heard a faint buzzing sound. It seemed to come from the table top's underside where it joined to the frame. Something black, small, and odd-shaped was there. A large fly? Nina reached with her fingers and ran into something bristly; just when she touched it, it buzzed louder, as if in admonition. Nina recoiled.

Once out, Nina returned to the door where the Witch waited for her, and scribbled on an offered scrap of paper, *Something buzzes under the table*. Having read this, the Witch gasped, then clamped her mouth shut with her palm. But the breath still forced its way out, in shoulder-shuddering bursts. Her shut eyes became like two wet crumpled napkins. The sight was so sad—but sadness was the source of all confusion and Nina did not want to be confused any more than she already was. So she left for the kitchen.

* * *

The next day the Witch brought a radio, put it on the table, and left it on. It played music and babbled even when the Witch wasn't in. But the Witch no longer went to work. Nina discovered it walking home from school: the Witch sat on a bench by the pond. The Witch's thighs parted under a big book that rested in her lap. The Witch's shoulders slumped. Wind was working to loosen the bun of her hairdo.

Nina sat down next to the Witch and picked at the blue paint that flaked off the bench. The Witch gave Nina a glance. Nina gave the Witch's book a glance. She saw pictures of flies and X-shaped turd-like things. Nina pulled out her homework. She could now sit outside, she thought, thanks to the Witch she did not have to go home for another while. She sat, content.

Nina came to sit on a bench with the Witch every day for about a week. Once the Witch asked, "Why don't you ever play with other kids?"

"I have a bad heart," Nina said, thinking about her murmuring, villainous blood.

"Is that right? I'm sorry to hear that," said the Witch.

In a while, Nina asked, "Why don't you go to work anymore?"

The Witch looked up from the book and said, "They shut down my laboratory."

"They did not want you birthing flies?"

"What? Um, I guess so."

"Why?"

The Witch straightened her back and gazed into the distance. She cringed when she recited, "Because at this historical moment true patriots must not waste their time studying defective fruit flies and instead should focus on generating superior varieties of corn and wheat to feed our country on its path towards communism." She looked at Nina. "And because only capitalist scientists claim that there are limitations to the plasticity of living organisms in the hands of proletarian selectionists . . . Do you understand?"

Nina nodded, yes. It must have been somewhat like the pond's name and the *Hail to*, she thought. "Is that why you are the Witch of the West?"

The Witch stared, then laughed. "If you say so."

Nina said, "I like sitting with you."

The next day the Witch had guests. Young men and women came over with many boxes and dragged them all into the Witch's room. These youngsters were so different from the Tenderloin Petrovs and Nina's family, even from the Witch herself. They were agitated and wild-eyed but not sad. They wore horn-rimmed glasses and unruly bangs, frayed pants and faded calico skirts; they told jokes and elbowed each other. They sprayed and sprinkled laughter all around as if they could not contain it, as if it was more compulsory than sneezing; they laughed even when Mrs. Petrov hissed at them from her door.

Nina liked that the Witch had such nice, laugh-filled friends.

They brought food and vodka. The young women boiled potatoes in the kitchen and pulled needle-thin bones out of pickled herrings. Then they all packed into the Witch's room. Nina hovered in the hallway when the Witch came out of her room with a stack of dirty dishes. The Witch was hot-cheeked and fluffy-haired. Nina wanted so much to get in that room and take a closer look at those nice guests who made the Witch so hot and fluffy, and youthful-looking.

"Nina, go ahead, come in," the Witch said. Inside, the young men and women sat around the table like happy pups, stacked up and crowding each other, two-a-chair, three-a-windowsill, five-a-couch. At least three conversations were going on, and every once in a while they'd nudge each other and wink and point at the table and press vertical fingers to their lips. Then there would be a brief lull, then another

burst of conversation. Then they would sing songs about sitting around a campfire and longing for love. Nina wondered if they knew about the *black buzzer* that lurked right under the tabletop, next to their elbows and knees.

Somebody gave Nina a slice of unbelievable cake and a cup of incredible tea, somebody asked what her name was. Somebody else asked what she wanted to be when she grew up. "The Tinman," Nina said, "In *The Wizard of Oz*." They laughed. One of them, a skinny imp with a mop of dark hair, sprang up and mimed how Tinman would walk. Rigidly, yes, but precisely. Slowly, yes, but confidently. "You should become a geneticist," he shouted, "It will be a so much more advanced science by then!"

Nina liked the young man. Perhaps being a geneticist meant being this young man's girl?

As hours ran into the night, the young men and women spoke hotter and louder. Even hush-hush gestures and vertical fingers poised at lips, and even the Witch's own pleading eyes and frowning brows could not stop them from shouting that Thomas Hunt Morgan's *genes* were real units of heredity and not a capitalist-idealist invention, and that they may well be carried on *chromosomes*; that genes could change all right, *mutations* simply required the right dose of *X-rays*; but that scientific truths, on the other hand, were not meant to change with the party line. They fumed and boomed, until the Witch gave up all her frowning, eye-rolling and silent pleading, and only watched them with a soft blush of a smile, as if they were her beloved, pride-deserving children. Nina's own mother never looked at Nina this way. In Nina's opinion, all of it was beginning to be sad, and thus so very confusing.

Only when a bang on the door came did they stop shouting and glanced at each other like schoolchildren caught at mischief, but it was just Mrs. Petrov, furious about the racket. Then they all left and never appeared again quite in such force.

Nina helped the Witch unpack the boxes the young men and women had brought. "It's all of my research, we rescued it from the shut-down laboratory," the Witch explained. The boxes contained myriads of glass vials, each marked in indigo scribbles, each filled halfway with dull-brown goop, and plugged with a cotton swab. Each had either little white eggs lying in the goop, or little white larvae crawling or cocooning on the walls, or little black flies busying about. Other boxes contained jars and cans, and others yet had a tabletop lamp, several magnifying glasses, a microscope, some needles, scalpels, spatulas. It was the goop that smelled of raisins and sourdough, but there were no raisins in it, only molasses, as the Witch explained.

The Witch's flies turned out to be nothing like the house flies of Mrs. Petrov's accusations. They were tiny and didn't buzz, and the Witch said that out in the wild they ate only fruits and vegetables. "Would you like to help?" the Witch asked, and Nina said yes, because this was connected to so many desirable things, like that nice and popular young man who'd mimed the Tinman, and being a geneticist-girlfriend, and being looked upon as a beloved, pride-deserving child.

Some of the young men and women kept coming over the next weeks. Alex was the name of the young man Nina liked. Alex and the others were the Witch's students and they helped her in birthing flies.

Birthing flies was really simple and monotonous and even Alex became boring when he did it. When flies broke out of their pupas and started scurrying in their glass vial, Alex or the Witch put them to sleep. For this, they used *ether*, which came out of a glass jar. The smell was like a very cold draft in the air, it bore into Nina's nose and chilled it. The Witch would put a drop of ether onto a cotton swab that corked the flies' vial. She said one had to be careful: too much ether for too long—and the flies would never wake up. Then she'd empty a vial-full of sleeping flies onto a

dinner plate and maneuver them with needles under a magnifying glass. Some flies only pretended to sleep and escaped. The Witch sorted the flies by their looks and separated females from males. It was very easy to tell them apart, Nina learned.

Sometimes the Witch put newborn flies into new vials with fresh goop. They would wake up some time later, startled by their new home. The Witch would say she wanted them to mate and lay new eggs. But other times the Witch just counted them and then drowned them in *formalin*—another glass jar, another smell. This one bit into Nina's nose and made her eyes water. The Witch would hunch for hours at her table, her hands moving in a circle of light cast by the lamp. Trays of vials, and notebooks, and a microscope crowded the black box of a radio that murmured its endless stories: about record-breaking tonnage of wheat to be harvested this year by collective farms, or about martyrdom of the pioneer Paul Morozov—who must have been a Pioneer/Patriarch—during the war with the German fascists.

When they ran out of new vials with goop, Alex brought a Primus stove, a bucket, tin funnels, and they poured, and mixed, and boiled some of their own goop out of yellow flour-like, very stinky powders and molasses. The powders hung in the air. They made Nina's throat itch, but Alex laughed at the powder on his face, and Nina laughed too.

There were visitors. An old man came to see the Witch once; he looked sad and worried. The Witch said, "You promised," and "I cannot maintain the colony in my room indefinitely. The neighbors will report me."

The old man only shook his head.

"Three years of work went into it," she insisted. "We are just now sorting through mutations, and it is a treasure trove. We can't lose it!"

"I know what I had promised," the old man said, "but my hands are tied. It's worse than we thought. I am sorry."

One day the Witch appeared happy. She let Nina look in the microscope. "These flies have virtually no heart, look! And it is inherited as a single, recessive gene! We are making discoveries, Nina!"

The prickly black mess Nina saw in the ocular did not look at all like a heart. So Nina was not surprised to see that making discoveries did not change a single thing to the better. The room still reeked of ether and dried yeast. The radio still blared. The *black buzzer* was still under the table.

Flies escaped, flew around. In the kitchen, Mrs. Petrov hurled a T-bone steak into Mr. Petrov because he'd got no balls to forbid the Witch to turn a coveted piece of real estate—the room that would one day rightfully belong to the Petrov family—into a fly-infested muck-zoo. The steak missed Mr. Petrov. Sitting under the kitchen table, Nina watched the steak. The Witch was right: her little flies avoided meat, only the big, black Petrov flies feasted upon it. Did the *black buzzer* under the Witch's table also eat meat? Nina watched when the Witch picked the meat up, washed it in the kitchen sink, and whisked it into her room. Perhaps the Witch was going to feed the *buzzer*? The Witch boiled the meat on her Primus stove. She said she had nothing else to eat. So they ate the meat, and the Witch wept as she chewed. That was how one fed the *black buzzer* under one's table, Nina decided.

The next day a man and a woman visited. They brought leaf tea, chocolate, white bread, smoked sausage. "Give me a job. Please! Anywhere. Anything. I am penniless," the Witch begged them. They told her to hold on just a little longer.

The Witch pleaded, "I have found a gene that makes a heart. There could be a similar gene in people. A little girl here, Nina, she has a heart defect. If we knew that a mutation in a gene caused it, one day we could repair the mutation. We could help kids like Nina! Don't you understand?! It matters! We cannot afford to lose the colony!"

But the Witch's visitors only shook their heads. The man said he agreed that there was plenty to learn from the fruit flies, but applying it to people was just too much of a fantasy, and if she went about saying how she'd cure heart disease with defective flies, she'd only give more ammunition to their opponents.

Then they left.

Flies escaped. Flies crawled. Mr. Petrov made a habit of banging on the Witch's door, then hiding in his room. Vials of moldy dead-goop were stacked in cartons along the walls. Mold was black and silvery-gray like the Witch's hair. The Witch sneaked out in the middle of the night to clean old vials in the bathroom, until Mrs. Petrov caught her in the act and threatened to call the police.

Nina's mother told Nina she was a bad, bad girl for associating with the Witch. Nina's mother told the Witch to stay away from Nina. The Witch told Nina's mother that she was damaging Nina by the ugly spectacle of her marriage; and why didn't Nina's mother do some child-rearing, buy her daughter some books to read, so the poor girl wouldn't just grow like a weed under a kitchen table. And Nina's mother shouted why wouldn't the Witch birth a child of her own instead of flies only, and then raise it any way she wanted.

The rest Nina did not get to hear. She left the apartment, slowly, saving her breath, went down the stairs, and for the next hour she sat by the pond, quite certain that she could hear her blood hissing and murmuring like a bad, bad villain as it shunted the wrong way through her heart.

Flies died. Whole vials of them gave in, and were swiftly engulfed by the grey-hair mold. The Witch no longer looked in her microscope, or wrote, or read her big book. She was away for long, odd hours, and returned glazed-eyed. Sometimes Nina would stay in the Witch's room while she was away. She'd listen to the radio and leaf through the Witch's books. The darkened room reeked of goop and mold, formalin and ether. Nina loved to have this whole room for herself. She wouldn't have minded if the grey-hair mold crept out of the vials and covered the walls. Like a forest. It would've made the room even safer.

She made up fantasies and stories. She played with the vials. She wrote in notebooks. She was a geneticist and formalin and ether were her magic tools with which she ruled the flies. She'd trickle a drop of ether onto a cotton swab and put flies to sleep. Then she'd toss them out onto a plate. She'd move them around with the Witch's needle, under the Witch's magnifying glass. This is Dorothy, she is a Sleeping beauty, and this is the Tinman, he has virtually no heart. Still he came to rescue Dorothy so they could mate and lay eggs. Leon Trotzky-Wizard erected a wall of goop in his way, but Tinman cast him into formalin.

Alex stuck around the longest. The last time he visited, he was very sad. "I am being expelled from the University," he said to the Witch, "This means I lose my permit to live in the city. I'll have to go back home, at least temporarily. They won't leave me alone if I stay."

He sat in a chair and the Witch came to stand in front of him.

"I understand," she said and waved away a fly. Then she cleared a tangled thread of hair off his forehead. "You shouldn't come here again."

He grabbed hold of her hand and pressed it to his cheek, then his lips. She stroked his hair with her other hand; it trembled.

Alex picked up his bucket and his tin funnel on the way out. He glanced at Nina as he walked past; he stopped. He crowned Nina's head with a tin funnel, steadied it slightly askew. "Here, little Tinman," he said.

"Don't leave," Nina said.

He said, "I'm sorry."

Nina understood she was a geneticist no longer.

"It's just me and the flies from now on," the Witch said to Nina when Alex left.

"And me," said Nina.

"And you."

This was worse than German POWs and worse than having to pretend that her mother's hatred was actually love, worse than Nina's own hissing and murmuring villain-blood, this was so much more sad and so hopelessly confusing—to pretend that there was a *from now on* when there was none.

"What is the black buzzer under your table?" Nina asked.

The Witch went over to the radio and turned it off. "It is a microphone," she said in a loud voice, "So that NKVD can eavesdrop on me. Hear that, you. . . ?" She addressed the table now. "I am a scientist, not an enemy of the people!"

The flies stirred into the air and circled around her.

Still with a tin funnel on her head, Nina watched the Witch as she packed her notebooks and a few vials of formalin-drowned flies into a small suitcase. "Are you leaving?"

"Of course not. I am trying to save a gene," the Witch said. "A gene that makes a heart. Would you keep it for me, please?"

Nina nodded.

"I've put it in this suitcase. It's yours now, don't give it to anyone, no matter what happens. Can you hide it in your room?"

"Uh-huh. Can I show it to Alex?"

"When you grow up, and if you see him. If he asks for it. Deal?"

"Okay." Nina shuffled her feet. Sadness grew in her like grey-haired mold. "What are you going to do?"

"I'd like to lie down. I need to get some sleep."

"Like flies?"

"I guess so."

"I'll sit quietly."

"Sure, only not here. Can you sit quietly in the kitchen?"

"I'll sit by the door," Nina said. "I won't let anyone in."

"Thank you but no," the Witch said, "You have a good heart, Nina, remember that. You'll be all right, you'll grow up and get to do great things. Just don't sit by the door, okay? Go someplace."

Nina nodded yet did not move. "But . . . it'll be a pretend sleep and then you'll escape?"

The Witch stared, then smiled. "Yes. It'll be just as you say."

Nina left the room and started down the hallway but then doubled back. She sat down by the door, overhearing how the Witch locked it, how a glass jar clinked, a couch creaked. She sat until the radio's babble was all she could hear. She did not get up when the front door bell rang and Mrs. Petrov shot out of her room to open it, as if she was urgently expecting someone. Nor when the hallway filled with people—men in NKVD uniforms, the apartment manager, both Petrovs, Nina's mother and stepfather.

She did not get up when the men in uniform told her to step aside. She was the Tinman, with retractable blades in her arms and a good heart, because in her suitcase she had a gene that made it. She had to hold on just a few moments longer to make sure the Witch escaped, even if it meant spreading her arms wide and stepping in the way of the NKVD man's banging fist.

"Don't bother her!" she shouted.

When Nina's stepfather grabbed her and dragged her away, and the NKVD men kicked the Witch's door in, and the smell of ether slithered out of the room like a very cold and strong draft, and she could see what was left of the Witch, just a shell of a pupa lying on the couch—not all of what she felt was sadness. There was a bit of joy. And this was not too confusing.

She picked up her suitcase, her tin funnel, and went out of the front door, then down the stairs, and out of the house that stood by the park, by the pond of Patriarchs, in the middle of the Red-City, in the middle of the Hammer-and-Sickle-Empire. ○

NEXT ISSUE

SEPTEMBER ISSUE

Tempestuous weather is forecast for our September issue. Our first stop is Venus, where Hugo and Nebula Award winner and NASA scientist **Geoffrey A. Landis** escorts us on a wild ride full of pirates, intrigue, and the stunning scenery of the second planet's upper atmosphere and introduces us to "The Sultan of the Clouds." The roiling skyscapes in this novella are gloriously captured by **Jeroen Advocaat's** dramatic cover art. If the clouds were Terran and the air-borne kayak was a two-seater biplane, the cover could almost do double duty for **Eugene Mirabelli's** first story for *Asimov's*. This Nebula finalist flies us to "The Palace of the Clouds"—a fabled destination much closer to home, yet no easier to reach than the cloud cities of Venus.

ALSO IN SEPTEMBER

We leave the skies of Venus and Earth for the enclosed worlds of two very different generation starships. John W. Campbell Award winner **Mary Robinette Kowal** gives us hard metal walls and hard moral choices wrought by limited resources and the calamity that arises "For Want of a Nail"; **Benjamin Crowell's** light tone and pastoral setting belies the equally dire circumstances that surface when his spaceship encounters "Wheat Rust." Back on Earth, **Nancy Fulda** plunges us into a taut tale of terrorism and time travel in "Backlash," her first story for *Asimov's*.

OUR EXCITING FEATURES

In her Thought Experiments column, **Aliette de Bodard** visits "The View from the Other Side: Science Fiction and Non-Western/Non-Anglophone Countries"; **Robert Silverberg's** Reflections warns about the new dangers our evil robot overlords may be plotting and tells us why we should be "Calling Dr. Asimov!"; **Paul Di Filippo** contributes "On Books"; plus we'll have an array of poetry you're sure to enjoy. Look for our September issue on sale at newsstands on July 27, 2010. Or you can subscribe to *Asimov's*—in paper format or in downloadable varieties—by visiting us online at www.asimovs.com. We're also available on *Amazon.com's* Kindle!

COMING SOON

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ON THE HORIZON

Nick Wolven

Nick Wolven lives in New York City. His third story for *Asimov's* takes a look at borders, psychological and political, that the future is likely to complicate.

The Feds come for me at dawn. Same old scene: I'm hunched over a plastic bowl of cornflakes soggy with soy milk, slurping some chicory-and-caffeine-additive from my resin cup—doing my bit for the agro tycoons—and waiting for the powers that be to pipe the day's regimen of tasks and distractions into my terminal. And instead the powers that be choose to manifest on my threshold in full flesh and cotton-poly blend, and rather than socking my ego with last night's juiciest international disasters by way of the AP wires, the little nano-emission screen that serves as my only conduit to the world of human affairs squirms with a low-res feed from the hall camera just outside the apartment, treating me to views of my parole officer's bald spot and the hair treatments sported by two federal goons.

Seems like it's happened this way a hundred times, though it can't really be more than nine or ten. But there's so little variation in my life now that I live every special event in hi-def and recall it in pristine detail, so that I can practically view the scene from any angle, can practically watch myself creaking up in my Looney Tunes boxers from the folding chair at my folding table, shrugging my jittery waste of a body into cargo pants and a V-neck T, shambling four steps—those well-known four steps—to the hall door, and punching my thumb into the intercom. Can practically look into my own limp pale face, my own listless gray eyes, and read my despair from the outside in.

They haven't given me much space, the powers that be. I guess I don't need much, since I consist mostly of bone and loose skin—and since I never learned to be a functioning component of society. And now they can't have anything messing with the special junk in my head, can't have my appliance of a mind compromised by all the world's confusing data. Quarantine, they call it: psycho-quarantine. A term loaded with extra meanings. One of which is that I get only nine cubic meters of latex-lined space to call home sweet home.

But somehow they manage to cram themselves in with me, the two feds blocking off the door to the hall while my parole officer litters my table with his e-paper and data cards, serving up the usual rigmarole about terms of release and durations of contracts, explaining in his special constipated way that I'm in for another joyride in the service of the law. I barely hear it. I'm too busy remembering the scene as it

was before, nine or ten or a hundred times, the same cornflakes turning to paste in a bowl of liquid tofu, the same deposits of stale sweat under the band of my boxers, the same sickening sense of expectation. Because I don't just remember what's happened or anticipate what's to come; I feel everything, right here and now, all the way back and all the way up to the fatal rush of homicidal anger, the hot body writhing in my arms, the windpipe crimping under my wrist.

I don't protest a bit as they wrap up the briefing and shove me through the door, ushering me toward my monthly dance with the errors and aberrations of society. I know what's coming, and I know there's no way to stop it.

A warren of moldy halls and bare concrete stairs, a flash of glaring sun and UV exposure, and then the feds stuff me into the back seat of their Oldsmobile, behind and between windows of high-impact plastic, and climb into the front seat. We're off. I can see the two agents through the divider that separates me from the front of the car. Agent Number One is a black guy, skinny and stooped like the rack for an IV drip, with a long nose sharp as an arrowhead. Agent Number Two is paler and fatter, with jug-handle ears, one of which intrudes on my view of the road.

We head from the government housing straight to the highway. A wise choice, if you're not into potholes, burning trash, and warlord politics. Ghetto overlords carved up most of LA a few decades ago, just like they did New York and Baltimore and St. Louis. They call themselves community leaders, but they share the same view of urban development: what's there is there for the taking.

At any rate, the Feds still run the highways, and we're scooting out of the urban core—inasmuch as LA has a core—at twentieth century speeds. I watch the public residential towers give way to glassy shopping centers, the shopping centers fade into tract housing interleaved with dusty palms in dying gardens: the demesne of some private consortium, I would guess. I lean forward, put my face to the plastic divider. "Where we headed?"

The feds don't turn around, but the jug-handle ear of Agent Two gives a twitch. "Tribal lands. Oxnard."

Great. Instead of urban warlords battling each other under cover of construction contracts, we'll be dealing with licensed contractors, agro-barons, and the ganglords of worker camps. But I don't make a fuss. "What's going on up there? Got to tamp down some rising wages?"

They don't even pretend not to laugh. "Human predator," says ArrowNose, "on the loose. Got out during processing at the county joint. We figure he'll run up here, back home. Scene of the crime, you know. Or crimes, that is. Five people dead. All from the camps. Execution style."

"You'd like the guy," says JugEars. "Seems like a real sick bastard. Just your type."

Now it's my turn not to react. And I don't. "Since when do you guys care about undocumented workers? Doesn't seem like five guys would be a big hit to the labor force."

"Not just guys," says ArrowNose, cool as fruit. "Kids."

That gives me pause. But at least I know, now, why the feds are interested. Because even undocumented people can make the news. When sufficiently colorful tragedies happen to them. When children die.

"So what's the profile?" I say, a little subdued now. "A pervert? Or some paramilitary thing?" There are a lot of communities in the area who come down on the tribal lands. A lot of angry young white men out there.

"Hell, no." ArrowNose. "One of their own."

"One of the workers?"

"You got it."

"So what's his problem?"

"Isn't that what you're supposed to tell us?"

And I suppose it is. My role, my primary function. The reason they keep me alive.

Technically, the Tribal Lands aren't any such thing. More of a no-man's-land, really. You could say they're still part of the U.S., but the fact is, as with so many places, the census workers don't go there, the teachers don't stay there, the doctors don't profit there, and the courts don't function there. So what's left? Just plywood, cinderblocks, tarpaulin, and a feudal economy. The big firms contract work out to the sharecroppers, and the sharecroppers contract labor to the ganglords of the Mexican camps.

From the federal highway you can see it all. The decaying remains of suburban developments originally constructed on annexed ranches, with their cheap housing built right up to the guardrails; a few diehard franchises persisting among the shopping centers and weedy parking lots, squeezing the blood of pocket change from the stone of a permanent impoverished underclass; the service stations along the highway walled off from the land like foreign embassies. It's all *theirs* now, inasmuch as *they* can be said to own anything. The old system, with its guest-worker programs and its cross-border traffic—that all ended with the Mexican collapse. Used to be Americans talked about sealing the border with Mexico, to keep the immigrants out. Now, Mexican drug lords guard the border, and *they* keep the immigrants *in*. What we have, essentially, are refugee camps. No one, neither the Mexican despots nor the American culture warriors, cares to assimilate these people. And so the agro-barons come in and use them as so much peasant labor—hammering out hasty arrangements with the American legal system, and paying the immigrants a pittance for backbreaking work.

Between the towns—if you can call them towns—you've got the farms. Broccoli, lettuce, lima beans, sugar beets. It all looks the same to me: row after row of low green plants and brown ditches, as though someone dragged a giant rake through an endless field of undergrowth. And of course, there are the strawberries. Who would think the world could need so many strawberries? You see big faded signs set up here and there by the road, targeting the profligate classes who used to drive through this region before America unofficially consigned the land to its immigrant underclass. *Have You Kissed a Strawberry Today?* And, *Life is Short. Make it Sweet. Pick Your Own*. And my personal favorite: *Strawberry! You Know You Want To...*

After about the tenth ad, the feds pull off the highway and follow a crumbling road between the fields. We come to a gate of metal slats overlaid with chicken wire. They pull up and Agent One takes out his phone. While he's occupied, Agent Two waggles an ear at me. "All right, Junior. Quiet time."

I know what that means. I slide obediently out of the car. He cuffs me, wrists and ankles. Then comes the hood. He slams it down neatly over my head like he's capping a pen and Velcros the collar tight around my throat. I can't speak, can hardly breathe. Sounds are muffled, smells are filtered, and through the black fabric, the world looks like a half-remembered dream. I feel hands on my shoulders. The agent shoves me back into the car.

Jouncing, engine noise, muffled voices. I tense my neck against the collar, work out the ghost of a question. "Where we going?" No one answers. The car stops and they manhandle me out of it. I stumble over uneven asphalt. A door creaks. The agents guide me forward. Cool air tickles my shins and forearms. The rough hands of the feds shove me down into a chair.

More muffled voices. I assume the agents are speaking with my first interviewer. Interviewer! What cynic came up with that term? Why not just call the guy what he really is: my torturer.

Without warning, they rip open the Velcro fastening and whip off the hood. A man stands before me. I know him instantly. I don't know how or why. An identification flashes in my mind, and I search for words to pair with it. They come in a chain: *Big Man. Boss. Foreman. Sharecropper.* He's a fat wad of sunburned flesh in slacks and imitation leather, with a blotchy face like a well-marbled steak. But I'm not worried about appearances. I'm already past that. I know in my bones: *this man is bad.* It's not a conclusion, not even a fact. It's simply an experience, like pain after a blow.

Before I know it I feel myself lurching forward. My muscles tense so hard they nearly cramp. My pulse beats like a piston in my head. *This man is bad and evil. This man deserves to die.*

He staggers back, his blotchy face folding in pink folds and creases around a rictus filled with enormous false teeth. He puts a hand on a desk behind him, leaning back, his huge belly threatening to bust his shirt. "Hello!" he says, then, "Jesus!" The current hits me, and I freeze, tremble, fall.

For a moment, everything's blurry. All I can think about is retching. Four federal hands lay hold of me and I'm dragged back out into the heat, thrown back into the car. One of the agents slides in beside me. He's still got the shockwand in his lap.

The windows of the car are dark now, tinted to opacity. It's just the two of us, sealed in a dark box.

"So," he says, touching his thumb to his chin. He reminds me of the prison shrink who used to sign me up for meditation classes and poetry workshops. His next words confirm the impression.

"Tell me what you're feeling," he says.

Tell me what you're feeling? That's what they always want to know. The research assistant asked me the same thing, before he put his worms in my brain. "So, Mr. Kojansky. How do you feel right now?"

What do they want to hear? I feel violated. I feel oppressed. I feel bad. And yet I always find myself giving an answer that sums up all those things. "I feel the same."

I was a rough kid. They say I grew up in a "toxic environment." I remember impressions, not explanations. I remember the day four kids from the upper grades cornered me in a bathroom stall, beat me into a stupor, and packed my mouth and nose with used toilet paper, how the panic of suffocation restored me to my senses. I remember the day I got revenge by choking one of them half to death. I remember which of those days felt worse.

By the time I left school I'd put two kids in the hospital, stolen a car, and kicked a lady teacher. The first time I made a mistake as a free adult, the psychologists showed up, crowing about my juvie record and APD. I'd thrown my meth dealer down the stairs. I thought the two of us had an understanding about such things, but the fall damaged his left-frontal lobe, gave him a penchant for negative thoughts. That's what the ME said, at least. Negative thoughts. I assume that's why he let himself bleed to death from internal injuries a week later, sticking me with a murder charge.

The authorities seemed to think that I had brain damage as well. The research assistant at the federal clinic described the neural dimensions of my bad behavior.

"The essence of a criminal, we think, is emotional dysfunction. Either emotional learning is inhibited, as in the psychopath, or maladaptive emotional responses are learned in a harsh environment—an uncontrollable hatred of authority, for instance. Either way, understanding a criminal is never about analyzing his actions in a rational light. It's about simulating his emotional responses, his subjective view of the world."

He seemed old for a research assistant, paunchy and gray. Probably embarking on a second career in forensic neuroscience after burning out on a police beat. Though he addressed me by name, he faced my lawyer as he spoke, and it was she who answered.

"Simulating?"

The research assistant rearranged the three empty coffee cups on his desk. "Channeling might be a better word."

"What you propose, as I understand it, is to turn my client into a sort of . . . radio for bad vibes." My lawyer laced her voice with irony, but the research assistant broke into an earnest smile.

"Yes, actually, that's the gist of it. Except that when you say 'radio,' you probably think of a broadcast media. Our system is the inverse, more like remote archival. Currently we have four thousand paroled criminals streaming affective data—their emotions, if you will—to our servers. We hope eventually to include all violent offenders. In order to read that data—in the case, say, that a perp breaks parole—we have to feed the emotions we've saved up to a receiver who can interpret them. To a human brain, in effect. That's the function your client would perform."

At the word *function* my lawyer smiled. "And in return for performing this 'function,' you're willing to change the sentence?"

"Well, that's up to the state. But from what I've been told, he'll basically be under house arrest. While participating in the study, that is."

They looked at me at the same time, telegraphing the eternal question. How do you feel, Mr. Kocijansky, about becoming a bad-vibe radio? I thought I might have become one already. I could feel the hatred radiating from them, their disgust toward a body that would soon serve their legal system as a function-performing machine. But perhaps it was only projection on my part. I had read so many brochures, watched so many informative videos, that I often imagined I'd undergone the treatment already—felt the itch of self-assembling nanowires branching through my dendrites, saw them wagging like wheat in the shifting field potentials of my thoughts, heard my amygdalae throbbing like twin hearts and the crackling of electrodes in my hippocampus and the rush of emotion down cervical fiber optics to a transmitter at the base of my neck.

The research assistant tilted a coffee cup and searched it for consoling phrases. "We're not exactly sure, yet, how your brain will interpret this data, of course. Chances are you'll have a mix of sensory impressions, mood shifts, triggered memories of your own past. Certainly nothing like clear telepathy. You'll have to think symbolically about what you experience. We do expect, however, that the strongest signals will take the form of negative responses." He practiced a sympathetic frown on his coffee cup and then lifted the frown to me. "Bad vibes, as you say."

"How does this sound to you?" my lawyer asked.

I could feel it up there in my brain, their wacky science and my wacky past in unpleasant admixture, dendritic and potential like unwritten history. "It sounds familiar," I said.

The agent is pouting at me, trying to seem patient. "You seemed pretty bent on that guy," he says.

"Well, yeah."

"Think you might want to . . . ?" He spreads his hands.

I know what he means. I shake my head.

"Sure?" His eyes narrow. "You wouldn't come after him? Wouldn't want to track him down? *Hunt* him down?"

"It's not that kind of anger." His eyes widen with skepticism. I sigh. How to explain

it? "It's not a hunting kind of thing," I say. "It's not a desire. It's a . . . a reaction. Not motivational. More like . . . situational."

He fastens on the part he understands. "Not a motive, you're saying?"

I try to sort my thoughts. But it's hard. Because in my mind, it's all mixed up. I'm not thinking of that sharecropper in the farm office anymore. I'm thinking of my dad. And a phrase keeps running through my mind, the first words I thought of when they whipped off my hood and I saw that sumbitch's fat red face. *Big man*. My dad sure did think he was a big man. The boss, big shot, the man in charge.

He was bigger than me, at least. That's what always counted.

But there's no point in trying to explain. I tell the agent the only thing he's equipped to hear. "He won't go after that guy," I say. "Your felon. He's looking for something else. *Someone* else."

"You sure of that?" he says. Then, before I can answer: "Who's he hunting? Where?"

I just shrug, send back another question. "What else you got for me?"

Mid afternoon. I'm standing in a strawberry field, the two goons behind me. I stare off down the green rows, smelling dry topsoil and the faint scent of the berries. *What do you feel, Mr. Kocijansky?*

But it's not a feeling so much as a memory. I remember soil on my fingers, the fabric feel of the strawberry leaves like flannel against my skin. I remember the sight of bruised and wounded berries, the fruit-flesh purple and ragged around a crimson wound. I remember pain in my back. It all comes to me not in intricate detail but in scattered impressions cohered by a conviction of familiarity, like memories of kindergarten.

I remember my father, his disappointment, his rages. I remember the day I came home from school and told him I'd throttled a kid in the boys' room: waiting there for judgment, retribution, for his response.

"Is that so, huh? Well, there you go."

That was all he said. I see him sitting there in his old desk chair with the broken pneumatic stand, hunched around his can of Fosters. "Is that so, huh?" As though what I'd done were neither good nor bad, neither weak nor powerful, neither triumphant nor depraved, but simply what the world expected.

"How's it going?" JugEars stands beside me. The hood flutters in his hand. "Picking anything up?"

I stare down the monotonous green rows to the clouds piled on the horizon. "This isn't the scene of a crime."

"No, we think he worked here, once. This is the last place we traced him before he started jamming the signal. A fresh scent for you, in other words."

He smiles in a way that tells me he doesn't believe in me any more than he does in fortune-tellers. And I am a sort of fortune-teller, in that the trail I follow is always cold, reduced to marks of strain and wear like the lines in a palm. Maybe spirit medium is a better term, repository of stale emotions that I am. For what is a ghost but a recorded emotion, attached to a location in defiance of time?

And this is the freshest ghost, the scene of our perp's last recorded mood, before he slapped on his lead cap and cut radio contact. A week ago? A day ago? It feels as real as the present: bruised fruit bleeding juice down my fingers, a skinny body fighting my grip, the shame of who I was and am.

"Feel anything?" JugEars asks.

I give him the answer he expects. "Not a thing."

They tell me we have one more stop. I know where we are even before they take the hood off. I don't know *how* I know it. No visual cue has tipped me off. No odor has

alerted me. No sound has alarmed me. But I anticipate the change of scene, apprehend it in a way that precedes cognition.

"No," I find myself saying. "Don't do this."

It's a gray building, dull and nondescript as a bomb shelter, in a corner of the farm grounds, near the administration center. I've seen buildings like it before; I know their purpose.

"Come on," says ArrowNose. "This is standard business. You know how this works."

"It doesn't work." I'm babbling, rambling. "There's no point. There's no *point* to this."

They prod me forward.

"Your doctor swears by this," JugEars tells me. "Says this part *always* works."

"You really think that? I'm telling you, you guys have got it all wrong. It's not like what you think it is. I can't read minds. I can't—"

"Come on." They shove me into the building. The coroner is already waiting for us. He doesn't look like a coroner. He looks like a paler version of the foreman. Bald. Large. Weather-beaten.

And apprehensive. "This the guy?" His eyes run over me in a visual pat-down. "You've got him properly restrained?"

"He'll be all right," ArrowNose says.

The coroner doesn't look happy, but he leads us out of the building office, down a glaring hallway, into the morgue. "I don't know what you expect to get from this. She was shot at the base of the skull with a 41. Not a lot to go by, in there."

The body lies covered on a metal table. He plucks at the sheet. I see pale fingers underneath. That's all it takes. I turn away, blinking furiously. ArrowNose leans in close.

"You got something?" I'm doubled over, and he bends too, trying to see my face. "This is his latest one. You picking something up?"

I wave him away.

"Look again," he urges.

I go on shaking my head. But it doesn't matter whether I look again or not. The damage is done.

The coroner pulls the sheet back from her arm, her chest. She's wearing jeans, an aquamarine top with a floral print. "All right," I say, before things can go any further. "All right. I've got it."

They lead me back to the morgue office. I'm shaking like a flower in the wind. The coroner turns to his computer. I grab his wrist. He turns slowly, managing to look both scared and irritated. I have to swallow several times before I can speak.

"What do you know about this woman?"

He jerks his arm free. "What do you mean?"

"I mean records. Background. Family."

The coroner glances at the feds. "We turned it all over. When this first happened."

"And this felon. You said he was picked up for killing children?"

JugEars speaks behind me. "That's right. Had himself a little spree. Two kids, two older guys. And this young lady. The farm folks caught him after he took her down. Ballistics and M.O. tied him to the others."

"What kind of guys were they?"

No answer. When I glance back at him, he shrugs.

ArrowNose chimes in. "Workers. Undocumented. We ID'd them from the farm records. The victims, the felon." He looks away, embarrassed and dismissive at once, like a teenager. "Right now, that's all we have to go on."

I turn back to the coroner, who shrugs. "It's true. Just what the LC tells us."

The LC: the labor contractor. "So what about family records?" I press on. "Relations?"

The coroner shrugs again. But it goes without saying. That kind of info can only lead to trouble. Everyone knows the contractors make it regular policy to break up families and keep coherent alliances from forming. But the farmers want to pretend they don't know that happens. So all that knowledge stays off the books, under wraps. What you get is not a name, but a handle. The IDs in the farm files are effectively barcodes; they reveal nothing about what most of us think of as a person's identity.

"You must know something," I insist. "Who'd he spend time with? Who'd he see on his hours off? He *did* get hours off. . . ?"

The farm coroner gives me a withering look. "This *felon* you're looking for wasn't even on our workforce. Only the latest victim."

Only the latest victim. An oblique sort of reference to the other victims—including the children that have died.

And yet it's coming together. It makes sense. I'm racking my brain for a new line of questions, when JugEars steps forward.

"Anybody come to see. . . ?" He waves at the morgue.

The coroner purses his lips, stubborn. But ArrowNose steps forward also, and the coroner breaks down. "Yes. Rosamar. That's what we call her here, at least. She worked for us a few years ago. I remember her. A very . . . active woman, very vocal in the worker community, hard to forget." For a moment, he actually seems chagrined. "She came to visit the body yesterday. She said she was the mother."

JugEars: "And where do we find—?"

"At Carlyle's place. That's where she is this season. The older workers, we don't put them on strawberries anymore. Too slow and stiff, no control in the fingers."

ArrowNose makes an impatient gesture.

"It's a little place," the coroner reveals, "lettuce and celery, just up the highway. About half an hour from here."

"That's it," I say. "Let's go."

"How—?" ArrowNose begins. Then he changes his intended question. "Who—?"

"His mother," I say. "Your felon. Rosamar is the perp's mother."

"And how do you—?"

I point down the hall, to the morgue. "Because that's his sister."

Before the coroner can regret his revelation, we're on the move.

They don't bother with the hood, now. As we're racing down the highway, following the navigation system to Carlyle's celery farm, ArrowNose turns and speaks through the plastic divider. "So." A bulge forms in his cheeks: his tongue rolling over his teeth. "What's the deal with this guy?"

"I could tell you," I said, "if anyone had kept records on him."

"Oh, we've got plenty of records. Ballistic reports. Autopsies. Crime scene photos. Psychological profile. You better believe we've got records."

"Right. A psychological profile. How's that working for you?"

He gives me the ignorant, dead-eyed sort of look that cops put on when they lose ground in a conversation. "What's he doing? Killing his family members? Why?"

"Why not? Is it so surprising?"

He frowns. "We're not talking a crime of passion here. We're talking a system. He's been killing children. His *own* children, apparently. And his sister, his brothers. And who knows who else."

"You wouldn't know any of that," I say, "if it weren't for me. You wouldn't know there was a system. Wouldn't know he had a family. Wouldn't know anything except that a few bodies turned up with bullets in their heads."

"Yeah, so?"

I shrug. "I'm just saying. Why should it be so hard to understand this guy? He's the picture of sanity. It seems to me like he finally started seeing things from the rest of the world's point of view."

We see the smoke well before we reach Carlyle's place. One of the farm directors—maybe it's Carlyle himself—meets us at the gate, pacing and twitching like a kid on Christmas Eve. "Christ, you guys are fast," he says, when ArrowNose flashes his badge. "We just called it in."

"We didn't get a call," ArrowNose pushes past him, takes a few steps up the main road of the farm grounds. From the car, I can't see much. Just the fields, outbuildings, a big blossom of white smoke. Wood smoke. ArrowNose has walked out of earshot by now, but I see him turn and say something to the farm director.

The director replies, "Yeah, we got a fire in the workers' quarters. We figured a cigarette, a camping stove. We brought everyone out, put 'em in the hydroponics plant for now." ArrowNose says something inaudible. The director shakes his head and barks in his loud voice, "No, we didn't do a headcount yet. I just don't want to see this thing spread."

ArrowNose comes back to the car. "Neither do we."

After some quick negotiations, we drive on up the road to where we have a good view of the building. It's what in days past I might have called a barn: big, simple, wooden. White smoke tumbles out the windows and doors. The smoke smells nice, spicy and sweet.

We park behind a stack of crates and the agents call for backup. And then we sit and wait.

"So what's up?" I say. "When do we race to the rescue?"

ArrowNose looks at Jug Ears. Jug Ears looks at ArrowNose. They laugh.

"This isn't a video game," ArrowNose says through the divider. "We did our part. We've got to wait for the hostage guys, the siege team. It's their game now."

"You're kidding. So you just let the place burn?"

"The fire service'll be here, soon."

"And then what?"

ArrowNose smiles. "They'll wait for the hostage guys, the siege team . . ."

I roll my eyes. "What if he's got someone in there? Rosamar? Another kid? What if—"

"What if, indeed," ArrowNose cuts in. "We don't know. That's why we're waiting for the hostage guys and the siege team." He opens the car door. "Hell, man, all this smoke makes me want a smoke."

"I can't believe—"

I don't finish the thought. Something pops up from behind the stack of crates beside the car. With a bang, the front seat becomes a container of noise and blood, like a roast exploding in a microwave. Another bang throws a wet red smack against the divider. I crouch down out of sight.

After about a decade of listening to my teeth chatter, I lift my head. I'm getting so many flashbacks I feel like a film projector. A meth merchant tumbling down a flight of tar-papered tenement stairs. A woman bowed beneath me, screaming. Echoes in a steel space, the smell of burning nitrocellulose, pain in my forearm . . . teeth in an open mouth . . . the pulp of smashed berries . . . my father's leer of a smile . . . and the grim conviction that it's all somehow right and necessary, that these things need to happen, that they've been handed down like a prophecy from a remote place . . .

I try to push my way out of the backseat, but the doors don't open from the inside. I panic like a trapped animal, hurling myself from side to side. When I calm down, stunned by pain in my shoulders, I notice that the divider is laced with cracks. A few

blows from the meaty side of my fist, and it comes apart in big plastic chunks. I'm able to worm my way through into the mess of the front seat.

It all feels like something that has happened before, that happened many times over a long while ago. The sticky remains of a dress shirt, the strange weight of dead flesh, the shock of lifeless eyes. It makes a strange kind of sense.

I find myself sitting propped against the front wheel of the car, holding a government-issue nine millimeter pistol in my lap. Sure: this is the way it goes. I get up and walk steadily into the burning barn, duck beneath the smoke and heat and crawl on the concrete floor. It's déjà vu all over again: the oil stains, the empty soda cans, the cigarette butts and empty matchbooks, the broken headphones trailing wire—and the man crouched on a damp mattress beside a supine woman.

I watch him. He watches me. As our eyes meet, the last partition in my personality gives way, and I see the world as it is, the grand scheme, the universal truth. Of course it doesn't come to me as a philosophical statement but as an image, fields running out forever to clouds of white smoke on the horizon. I see the grave of the first child I buried, the one that was an accident, the one I didn't even intend to save. I see that child, a baby still intrigued by the mysteries of speech and balance, going on beyond the horizon and the clouds to the home he truly deserves. I see them all, the saved ones, the delivered ones, every member of my family marching through green rows out of this world, right on down to that skinny boy I choked in the boy's room years ago when it all began: when I learned what it was like to give back what you got, felt the justice, the rightness, of a windpipe crimping under my wrist, when I went home expecting punishment and my father told me, with his eyes and his laughter and his indifference, what I could expect from the world.

I lift my gun, steady it. And I fire two bullets into my face.

His head rocks back, but the rest of him falls forward. He flops down over the woman, sprawls in her lap like a boy prepared for a spanking. She lies still, staring into the vague white void of the smoke. After a moment she reaches down and strokes his face.

I get her out through the rear of the building. It's only when the fresh air hits me that I realize how much smoke I've inhaled. For a while we lie side by side in the grass, choking and looking up into the sky. Something in the disordered wreckage of my mind insists that we've got to move, leave, run somewhere. I roll over and put my hand on the woman's cheek, then on her shoulder.

"Rosamar? You all right?" Am I speaking Spanish? English? I can't tell. Something has happened in my mind, something that makes all the wreckage and disorder meaningful—at least, more meaningful than order ever was. "Hey? Rosamar? We've got to leave."

She squints up at me, face darkened by smoke. "Gabriel?" Her voice rises, wavers. "*Gabriel?*"

"Close enough." I help her to her feet. We stumble away, through the buildings and the fields. There isn't much security on the perimeter of the farm, just a metal fence that we manage to clamber over. Really, I think, why would anyone try to escape? What other world is there for them to run to?

What other world, indeed. . . . From a slight rise outside the farm, Rosamar and I can see the police setting up their perimeter around the burning barn, the firemen arguing with the captain of the siege team, the crime-scene team fussing over the car where two feds lie slumped together in a sticky heap. So much fuss and bother, so many plans. Sad, in a way, to think there's nothing for them to find down there. Not anymore. The truly significant mystery has been solved.

I take Rosamar's hand. She doesn't resist. It all feels right, calm, inevitable—even pleasant, in a way, to look down on that distant activity. To stand, for a moment, right smack on the horizon, on that invisible wall that divides us among our many worlds. ○

Greg Bossert is doing music and sound effects, as well as editing and computer graphics for famed Star Wars sculptor and animator Tony McVey's new science fiction stop-motion animation project "The Gardens of Miranda." The details for this endeavor as well as other news and thoughts about the craft of writing are available at Greg's blog: www.gregorynormanbossert.com. Although he's already been the author of an *Asimov's* cover story—"The Union of Soil and Sky" (April/May 2010) and has another tale waiting in our wings—

Greg is thrilled to be attending the 2010 Clarion Writers Workshop in San Diego. We can't wait to see what stories come pouring out of that experience, but in the meantime, we warn you to hold onto your seat while Greg whisks you along for a thrilling adventure aboard a . . .

SLOW BOAT

Gregory Norman Bossert

NaN, Our Lady of Omissions, opened her eyes onto the black of her coffin, and lifted herself up. And cracked her head against the lid, which was minus one for the all-a-dream-after-all. The dark, the silence, the feeling of floating, the inability to move, all that was the stuff of contented reverie to her; "fine and private" she mumbled hopefully at the stars that flared in her head. But the pain was not, nor the stale air, nor the cracked sound of her own voice in a tight space, and surely not the feeling of something *grating* inside her left arm. She reached up with her right, and just eight inches above her head was the lid, metal and solid and cold, grave cold, death cold.

She tried to kick, down or up, but her legs were heavy. Not dream heavy, but wrapped in something, layers of something, smothering but icy, and slowly, firmly pulsing, and that's when she lost it, flailed and screamed, more a squeal from her shriveled throat; she just went away for a bit, then, to a simpler, more accustomed darkness.

But the cold was insistent, and the throb in her head, and a flashing green, that wasn't from the smack into the coffin; it was a display mounted in the lid above her face:

[Door—Open? RIGHT-Yes LEFT-Cancel]

With helpful icons illustrating the concept of left and right, but nothing clarifying "open," or indeed what exactly would open. Idiots, she thought, while the lizard brain went back to flailing, because there was something on the lid above her right hand, an LED and a nub, a switch, and she slammed it right, yes yes yes open let me out, right through a series of warning screens which belatedly scrolled onto the display:

[Pressure Differential—Continue? RIGHT-Yes LEFT-Cancel]

[Life Support Active—Disengage? RIGHT-Yes LEFT-Cancel]

[External Locks Active—Disengage? RIGHT-Yes LEFT-Cancel]

A downward whirring, and the clunk of latches disengaging down the length of the coffin, and then the hiss of air, the exact volume and tone of her earlier shriek.

"Idiots!" she said out loud, and fumbled the switch left, just once this time, and waited for the display to update, as her ears popped.

[Open—Abort? RIGHT-Yes LEFT-Cancel]

Once, just once, to the right, and the hiss stopped. The display offered:

[Open—Resume? RIGHT-Yes LEFT-Cancel]

"Cancel" just redisplayed the same prompt, but the switch pushed down as well, and up, and that gave her a menu, and options to restart the life support systems, and reactivate the locks; she chose "yes" to both, lay there, and caught her breath, which had, she suspected, been depleted more by panic than actual decompression.

"So then, factcheck," she said to the display. "I'm in a box. A box designed by cubedwelling monkeys. It's cold, it's dark, my intestines are trying to switch places with my lungs, and there's no air outside. Where does that put me?"

The display said [Main Menu], but it was bzzz, sorry, thanks for playing, "space" is the answer we're looking for, even if that's

"Totally whacked," she croaked,

who had just dozed off, what felt like a few minutes ago, on her couch in Reno, which might be vacant and vacuous, but was firmly, relentlessly Earth-bound.

Inventory, then. One coffin, previously mentioned. One self, NaN, Our Lady of Omissions, likewise. Panties, one pair, in a bunch, or so it felt, under some kind of heavy, stiff . . . she tried to shift her legs again, which were wedged a bit askew, one foot not fully into what felt like an attached boot, and then she had to shut her eyes and breath against the claustrophobic panic that bubbled up again, along with her damn floating guts.

"Heavy, stiff overalls," she continued. "Whatcha bet, spacesuit?" The dim light from the display didn't illuminate anything beyond itself, so she probed about with her free hand, and it felt spacesuit-ish enough, tubes and straps and rigid panels. A bit gritty, outside and in, and a full size too big, and something suspiciously like duct tape; not at all the shiny tech on the tube ads, but that was reassuring, in a way: more real, less likely that she was stark raving, which was otherwise Occam's opinion on the situation.

The suit was not exactly on right, either, which was the reason her legs were so tangled; the left side was unzipped and pushed down to her waist, something achy cold against that breast no matter how she shifted, and her left arm pinned, straps, it felt like, and tubes running up from somewhere below and into sockets *in* her arm. Well, the sockets weren't actually mounted into the skin; no alien neurotap tech, which might have confirmed the stark raving theory. The sockets were mounted on needles, and the needles were taped down, their tips somewhere deep in her forearm, which was plus one for nausea, minus one for crazy: an IV, drugs, keeping her under, keeping her fed, maybe, which brought up questions like "when" and "how long." Better, she thought, to stick to the inventory for now.

But that was as far as she could reach; no way to bend and follow the IV tubes toward her feet, past the tangle of suit around her waist, and nothing else but smooth, frigid surfaces, excepting the switch by her hand and the small display panel over her head.

In front of my head, she corrected herself; *over* my head

"Is where I am," she said out loud,

but she, if she wedged her elbow up between her cheek and the display, she could reach past her ear and touch something chill and sharp: metal, but not the end of the coffin. A curving rim, and a rubbery lining, and some sort of latch that rattled on the side, and that *was* just like the shiny spacesuits on the tube ads.

So, then, time for summary, and never mind that word “time” and the associated questions, she could deal with that when she had more data (but I’m *skinny*, those are my ribs making icy ridges against my arm, and how long would that have taken?) more solid data to work with. No, the issue here and now was:

“Do I, NaN, Our Lady of Omissions, lie here like a good little stiff where someone *stuck* me, or do I pull this helmet on and get out of this damn box?”

Not a Number, she thought, and reached up for the helmet.

It had taken her a while before she was ready to risk the coffin switch again. It had taken her a while just to get the tubes disconnected from her arm; in the end, she had unscrewed them from the sockets, one dribbling something cold and slimy onto her hip, and decided to leave the needles where they were, in hopes of finding better light, or a first aid kit, or a flying doctor. Likewise for the strap around her chest, angled like a bandolier, stretchy and embedded with sensors; she’d disconnected the attached cable and tucked it next to the tubes.

And then she had wiggled into the left side of the suit, and spent the good part of half an hour trying to get the zipper up and the overlying seals pressed down, everything made that much harder by fits of convulsive shivering. There had followed a few minutes of raging frustration trying to get a grip on the slick rim of the helmet; eventually she shoved with her legs and slid herself up into it. Fortunately, the helmet latches had been designed for clumsy gloves; even more fortunately, the suit powered up automatically when the latches were engaged.

Nothing for it, then, but to flick the coffin joystick down to the emergency menu, and right, right, right, the hiss barely audible through the helmet, and the display flew back and around; she could just catch it flashing

[OPENING]

as it tilted out of view, a desperate grab after the lid, and then she was tumbling out into deep space. Deep space was dark and cold and about eight feet high; she pinballed off two walls and headfirst into the side of the coffin, slamming the same spot on her head against the helmet visor.

“Airbags,” she muttered; she was keeping a list, and some designer’s ass was gonna smolder as soon as she got messaging access. She was wedged head-first against the coffin, feet dangling into the void, such as it was. She bumped through the suit menu with her chin, found

[Lighting/External/Helmet]

The headlights picked out the coffin, plastic crates in a web of webbing, a far wall. She pushed herself loose, hit three walls this time but missed the coffin; difficulty four and a half, she thought, and she was not going to hurl, which proved true, but only because her stomach was empty.

The other direction: more crates, more webbing, more walls, and double doors at the end. Deep space looked a whole lot like a shipping container.

She wormed her way through to the end with the doors. There was an emergency release marked in yellow stripes, but it was wedged, or maybe it was just that she was dazedskinnyweak (how long?). She crawled back to the coffin, looking for a lever, “Find a crowbar, I’m using it on you first,” she said to the coffin display,

The coffin was deep, and full of gizmos, all miniaturized and delicate and firmly attached. Strapped to the outside, however, was a bag, and in the bag was a shielded electronics pouch, and in that was

“A(i)da!” she cried, or croaked.

Her baby, and alive alive o; she came up in war-mode, and NaN let her spin because you never know, but “no networks found.”

“S’okay, A, we’re in space,” NaN explained, though A(i)da couldn’t hear her with

the vacuum and all, gotta fix that, but first make sure that she was inviolate. "Driven snow" A(i)da assured, via her screen, NaN's own code, burned onto a PLD hidden under a blob of solder. But someone had made a pass at her, and had been clueful enough to block the camera while doing so. The logs showed the attempt as 2042.10.14, which was tomorrow-that-was, and that brought up the issue of today-that-is, but with A(i)da there, NaN was fearless, mostly, and anyway too late, she'd looked. It was okayokayokay; she drifted for a bit, but it wasn't really a surprise, given the skinny ribs and all. 2043.03.10. Five months, not even, she could handle that, and anyway, it was done, and she was out, and about to be more out.

The bag also contained some cables, a pen, postums, a mug, a dirty spoon, all quite familiar: someone (who?) had dumped the entire contents of her desk-cum-table. No crowbar; she was definitely keeping one next to the mug from now on.

With A(i)da tucked into a pocket on her hip, NaN shimmied back to the door. The spoon just bent, first try. But her brain was getting straighter; she looped some webbing through the handle and wedged her feet and pulled, and felt the clunk as the latch gave way. Feet wedged the other way, and the webbing clipped to her waist in case deep space was deeper this time, she pushed the door open.

And space *was* vast, maybe fifty feet "down" past the container edge to a wall, and a bit less up and side to side; the far end lost in shadow, and all filled with shipping containers clamped to each other, and to a grid of steel supports. She let herself drift to the end of her leash, spun slowly; in the other direction, maybe forty feet and a wall, this one with features: panels and cables and doors: a huge hatch, and a pair of smaller ones, and another at the top, and that one with a dim green light over it.

"This way to the egress," she said to A(i)da, despite the vacuum. She tugged on the webbing and spun slowly; the hold was too big, she was thinking, *way* too big for some corporate suborbital or LEO shuttle. She pulled herself back into the container, got the bag, threw in a couple of lengths of webbing, and then out again, and down the length of the container via a series of handy handholds; some decent designing, at last. The gap between the end of the container and the door was forty-fifty feet, and at an angle. She held onto the handles, and tucked her legs under her; no way to look up and adjust her aim,

"Helmet camera," she added to the list,

and let go, a bit of a roll, but her stomach was reconciled to the floating now, and she rotated far enough to see the door coming at her fast, just time to get an arm out and snag the surrounding grid; she hit hard but took it on her knees and hip this time, not the head.

The green side did not say "Exit" after all, but "Bridge" worked for her. There was a keypad and display, dark and dead. No doorbell, so she pounded with a gloved fist, her feeble, skinny fist (five months!), then grabbed hold of a handle and kicked until her feet throbbed, gasped out a sob, and saw the sign above the handle, that read "Airlock Manual Override." Some government safety bureau had screwed up and accidentally got it right, down to the helpful arrows that said "pull out, rotate up," and the door swung in. More handles, more arrows, and then there was hissing and clanking and a long airy sigh (that was her) and the inner door opened.

The bridge was empty, no one home, and she suspected no one just out for a walk, soon to return and find their porridge gone and their bed full. No bed, for that matter, or sign of porridge; just an all-business control room, twenty by fifteen by ten or so, with lockers along one wall and consoles along another, and a narrow strip of window blocked on the outside by a metal shutter. At least there was air, if she could trust the suit indicators. The suit was pretty ripe, or she was, so she risked it, popped the latches, ready to slam them back. But the process was hiss-free, and the cabin air coldly metallic but breathable.

The consoles were blank and unresponsive, all but a display that demanded [Insert key]

alongside a thumbslot. NaN guessed that leaving the ship entirely unlocked wasn't in the regs . . . but why was she guessing? She fumbled the pocket open.

"A(i)da, A(i)da babe, howzit?"

"NaN, it's all good," the tablet replied, in her low, sweet voice. NaN's voice, to be sure; the stock personas had been tragically lame, and anyway NaN didn't use anything stock. "All good" meant just that, a full system check; A(i)da's makers claimed she was vacuum-proof-radiation-proof-water-proof-down-to-thirty-meters, but marketdroids were inveterate liars, no matter how perfect the product.

"Whatcha know about low energy transports?"

"Context?"

"Spaceship. Unmanned. Big."

"Low energy transfers: trajectories between stable orbits requiring minimal delta-v, utilizing weak stability boundaries, often at Lagrange points. Within the solar system, colloquially, the Interplanetary Transport Network. In short, a cheap but slow way to travel between planets and/or moons. More?"

"What about real ships? You know, active?"

"Active low energy transport routes in order of tons of cargo carried, Earth Transfer Orbit to—"

"Wait, what about passenger routes?"

"Negatory, there are no active passenger routes using low energy transfers; while efficient, the trajectories are much slower than Hohmann transfers. Life support costs and passenger comfort outweigh fuel savings."

"The hell. You were saying?"

"In order of tons of cargo carried, Earth Transfer Orbit to Lunar TO, Earth TO to Earth-Luna L1, Earth TO to Mars TO, Earth-Luna L1 to Earth TO, Earth TO to Sol-Earth L2, Europa TO to Ganymede—"

"Whoa, stick to those from Earth. And narrow it down to routes that take more than five months."

"All the active routes take more than five months. Again: a cheap but slow way to travel. More?"

NaN had drifted up and over; she pushed off the ceiling and wrapped her legs around one of the console chairs, blinked up at the lack of view.

"Ah, okay, look, do you have a schedule of departures from Earth for, um, the two weeks after October 14, 2042?"

"Yes, there were seven ships that match the parameters 'spaceship,' 'unmanned,' departure from Earth Transfer Orbit, low energy transfers, October 15 to October 28, 2042. Clarify 'big.'"

"Oh, uh, maybe eighty by eighty feet wide, and, whoof, a hundred feet long? That's the hold, and the bridge here, no idea about the engines and crap."

"Four of the scheduled departures were to the Earth-Luna L1 transport hub, shuttling light manufactured goods and pharmaceuticals, size well under the given parameters, adjusted for your customary margin of error."

"That's why I have you, babe."

"The other three departures fit all parameters: October 15, Earth to Luna; October 19, Earth to Sol-Earth L2; October 22, Earth to Mars."

"How long? I mean, what are the arrival dates?"

"Tata-CASC Flight L287A, Luna via L5, inserts Lunar Transfer Orbit on May 10, 2043, transfer to Low Lunar Orbit on May 12. ESA Ex92-NASA Gen20 inserts Sol-Earth L2 halo orbit on September 29, 2043. MarsCon E15 inserts Mars Capture Orbit February 15, 2044."

NaN was frantically scanning for some sort of corporate logo, business card, pinup calendar, whatever. The console was sullenly blank, so she went through the cabinets; a toolkit, made in China, that was no help; two emergency one-size-fits-all space suits, less stinky than hers, but far more flimsy, duct tape aside; a dozen bottles of air for the same, which *could* be useful; four packets snacks-ready-to-eat, and four liters of water, half a liter of which disappeared in a few painful gulps. Under the food packets was a pen, which she grabbed at, and subsequently chased around the cabin: "Courtesy Orbital Savings and Loan." She flicked it at the useless window *tink* and rotated in slow, thoughtful circles.

Windows.

"A(i)da, if we could see the stars, could you, you know, triangulate our position, figure out where we're headed?"

"Unlikely. My camera has insufficient resolution to measure stellar parallax."

"Ah, bugger me."

"No can do. However, a visual survey would be able to distinguish between the Lunar trajectory and the other options."

NaN grabbed the seat back.

"A(i)da, my dear, how'd you like to go for a walk?"

The airlocks on either side of the hold's main hatch had manual overrides, but they required a few extra steps; gotta keep the average newbies from accidentally launching themselves, she guessed. And not like she herself was a noob—five months flight time, after all, if unconscious, but hey, muscle memory etc. etc.—but she went back and got some more webbing, and rigged two separate lines to tie points in the airlock, and tugged on them as hard as she could, before opening the outer door. She was breathing fast and shallow, blood thumpathumpa in her ears; so much for the silence of space. Then the door slid sideways out of her headlights and it was dark; her eyes scrambled to adjust. There was a haze, air, maybe, escaping and condensing, but it didn't move with her headlights. It was stars, the Milky Way, she guessed; she really didn't go out much at night, or in the day, for that matter. Out was where she was going now, though, like it or not, hand over hand along the edge of the door.

"A(i)da," she whispered, "you seeing this?"

The tablet was strapped to her forehead with duct tape from the toolkit; the only way NaN could think to give her a view and yet be able to talk.

"Somewhat," A(i)da answered wryly; "Wryly" was one of the first behaviors NaN had added to her persona profile. NaN bobbed her head down.

"Better?"

"Still somewhat. We'll have to move clear of the ship."

"Shoulda just tossed *you* out on a leash."

"My inability to maneuver would make a complete survey difficult."

"Yeah yeah, always with the same excuse. Like it's easy for me."

But it was. She just had to let go.

"Okay, on three. One. Two."

"Three," said A(i)da, and then they were drifting. The front of the ship was a squarish hole cut into a million zillion stars. Her heart jumped as an angry red spot slid into view, but it was just some sort of running light on the ship's nose. She reached the end of the line, one of them, and begin to spin toward the ship, and then the other line went taut and she started a slow, complex swing, out past the black edge of the hold. Her heart was still revving, but it was a bit quieter in the helmet, as she'd postponed the breathing for a bit. Maybe too long; her vision suddenly dimmed along the right side, but A(i)da caught her worried grunt.

"Visor polarization. We're drifting into sunlight."

And there was the ship, stretching away, and the sun, all blindingly brilliant despite the visor, and as she continued to spin, that's all there was: ship, sun, stars, and one small spinning dot with a suddenly full bladder and a computer taped to her head.

NaN gasped in a thick lungful of air, and said "Earth, maybe behind. . . ?"

"Negatory. Earth is in view, approximate apparent magnitude minus two point five, currently about twenty degrees upper left of center of your field of view."

There was nothing there but stars, teeny little stars, and maybe one brighter than the rest.

"Well. Frig. Me. Raw."

"No can do," said A(i)da.

New list: least favorite places ever. First and only entry: right where she was, back in the coffin. It was cramped, dark, smelly; but then again, so was her studio in Reno. What it also shared with her apartment was air, and food and water, even if the latter were courtesy a needle and a pump. Getting back in had not been easy; she'd taken the long way back through the hold, checking the other storage containers, which were barcoded and tagged, but no handy packing slips, no logos for, say, frozen pizza or Blind Rage Cola (beverage of choice for Our Lady of Omissions). And then she'd spent longer investigating the coffin. It was much larger on the outside, with a control console that was more complete, if no better designed, than the one inside the lid. BengaTek RE-TAI_n. "Rescue Emergency Transport Autonomous Internetworked" A(i)da expanded; NaN thought "lame," but kept her mouth shut, since A(i)da shared some of that acronym. There were red lights, and a backlog of alerts: "Sensors disconnected," "Intravenous supplies disconnected," "Oxygen usage below nominal range." But before that, a series of warnings from the brainstate maintenance subsystem: "Intravenous pump two failure," "Sedative flow 0%," "ALERT: Patient exiting coma state."

"And I'm gonna, any minute now," NaN said to A(i)da.

But the nutrition subsystem was online, and the oxygen/pressure, both showing around 80 percent supply, whatever that worked out to, and while the bridge had air, it wasn't exactly overstocked with food and water. What she needed, even more than those essentials, was a place to sit and think, and now that she knew what it was, the coffin was actually pretty close to her ideal environment: dark and distant and sealed from distracting contact, excepting A(i)da, of course. A(i)da agreed, but then again, she usually did; no thinking out of her carbon composite box for A(i)da, particularly not out here, way off the Net, and working off of what snapshots she had downloaded and stored that last night on Earth, five months back.

A(i)da, unfortunately, had no better information on what had happened than did NaN. Her camera had gone dark, across the spectrum, at 02:40:15 2042.10.14, and she'd lost connectivity at the same time; popped straight into the shielded pouch, most likely. A few hours later, a cable was plugged into her STB port and the not-entirely-lame but ineffective crack attempted; there were a few blurred frames of fingertips. And after that, the only useful data was from her accelerometer, which suggested that they'd been shipped into orbit the following morning, and banged about randomly for the following week. That was enough to rule out the Moon flight, but the fact that they were in the middle of nowhere had already done that. A(i)da didn't have enough info on the L2 and Mars trajectories to narrow it down further. She'd recorded audio, anything significantly over the noise floor, but it was useless, just low-frequency rumble and her own slipping about inside the pouch.

"Well, they're not noobs or kiddies or monkeys," NaN said, meaning the soon to be dead and desecrated bodies who'd kidnapped her. "They knew how to handle you, figured out how to get us into orbit, stuck us in here; I mean, there are serious inspections for customs and security and export fees; heard enough about that at the Damn Convention."

The Damn Convention had been NaN's one public appearance as her cyberself. Like Irene Adler for Sherlock Holmes, it required no further qualification, and cast a dark and dubious shadow across the personal mythology of Our Lady of Omissions.

She'd hit a export fees database a few years back, actually, Chinese and thus to some degree government, which was rare for her; she stuck to corporations as a rule, but this one had been tracking end-users versus media purchases, and that seemed like personal information to her, and what she did with personal information in databases was Omitted it. Substituted with similar but fictitious data, when possible, to further gum up the works, or just the repeated word "omitted," and always tagged somewhere with the local encoding of "NaN." Our Lady was an epithet from the boards, which she liked well enough to adopt, but only between A(i)da and herself: never encourage the fanboys.

A government would have the resources for this sort of thing, but why the subterfuge when they could arrest her or just disappear her? Mind you, she was damn well good and disappeared; who knows, maybe she was headed to some sort of space gulag at L2, or a labor camp on Mars, which was pretty much all there was on Mars, from some points of view. But governments had military ships, and colonist transports, and anyway, this setup was too competent, and too cost effective, for any of the governments she'd crossed bits with.

Corporations, now, there were plenty of corporations who would gladly pay well to see Our L. of O. well and gone. More than she could list (though A(i)da could). It still didn't really add up, though; the usual corporate approach would be to break her, body and soul, in the civil court system. Or just break her body and leave it in a ditch, hell, on her couch; it's not like anyone could link her meat self to NaN and her corporate conquests. So why the hassle of shipping her away? And why, apart from terminal idiocy, would they stuff A(i)da into a pouch instead of exposing her to some serious supercomputing; not that they were going to crack her, not with NaN's mods, not for a long, long—

NaN sat up and

"Ow!"

smacked her head again. "A(i)da, any idea what kind of protection that console has? The ship's controls, I mean."

"Negatory. My data on spacecraft in general is just wiki-level."

"Yeah, but, I'll bet that lock's nothing specially space-y, just software, some kind of general corporate-level access control. I mean, it's not online, so what's the attack analysis? Space pirates at the Lagrange points? I doubt it. Crew, workers, *maybe* someone with a hankering and an orbital shuttle. All they need to stop are nuisance attacks, worse case a couple of weeks of cracking. We might . . ." She rubbed the bump on her head and winced. "We might have months."

"Insufficient data. You're the expert," said A(i)da.

"Damn straight, babe, damn straight," said NaN.

Cracking the console's key meant leaving A(i)da in the bridge; NaN was using a resource attack, looking for fluctuations in power usage caused by CPUs switching in and out: a vulnerability in several popular corporate key systems. That meant A(i)da was plugged into a power jack, despite her fuel cell. But it worked out, well enough; NaN slept in the coffin, but spent her days—she drifted about a bit, but tried to keep her schedule on Reno time—in the cabin, or poking about the hold. Which was what she was doing now, literally: jamming a screwdriver into the pressure release on one of the shipping containers.

She still didn't have a clue what was in most of the containers; with luck there'd be a manifest on the console computer, once they'd cracked it. But there were a handful of oddball containers, some clearly containing liquids; a stack of smaller, shielded

units, electronics was NaN's guess; and two dusty, battered containers stenciled in Cyrillic, which A(i)da translated as "Volga Grain Consortium." It took a solid day of effort with the little toolkit from the bridge to get one of them open, which proved to be a seriously newbie move. There were two layers of pressure seal, and the obvious pressure valve had only evacuated the outer shell. She'd actually heard a hiss—air hitting her suit—before the inner panel blew, sending her careening and bruised into a support column, and evenly distributing what must have been tons of grain throughout the hold. The cabin smelled like breakfast cereal after that; sheer torture it was, and she'd resorted to scraping up scant handfuls and bringing them into the cabin to chew, with what little saliva she could muster up.

Necessity was a mother, though, and within a month or two things were looking, or at least tasting, a bit better. The first breakthrough was the cabin air, which had started to get stale after a few days; she'd been lucky that the loading crew had left the cabin pressurized, though she guessed that anyone who worked in space would be loath to dump perfectly good air, not when a crew would be getting on at the far end to do more spaceman stuff. She'd been likewise lucky that the air recirculation system wasn't under the console lock; she tracked the ducts back to a panel just outside the bridge airlock, and turned the scrubbers on. More of those useful safety regulations, and maybe she'd pay her taxes next year in appreciation. *Pro rata*, mind you, for time spent in space.

The air system lead her in turn to water. It turned out the ship was full of it, tanks between the hull walls and the outer layers of the ship, propellant and oxygen supply and shielding for delicate cargoes. Excess mass wasn't a worry on low energy transits, apparently. Given the effectively infinite supply of water, she drained the four liters in the bridge cabinet, which she'd been saving for a last, desperate binge, and that left her four empty bottles, one of which was currently wedged against the inner pressure valve she was abusing with the screwdriver. A bit of fiddling, and a steady stream of oats shot out, some reasonable percentage of which ended up in the bottle.

Back to the cabin, then, for a tasty and nutritious meal of drammach, which was cold water mixed with oatmeal, according to Robert Louis Stevenson. A(i)da had been reading out a selection of appropriate books when NaN was in the bridge, doing the voices and occasional sound effects; they'd been through *Robinson Crusoe*, and *The Count of Monte Cristo*, and *Kidnapped*, hence the drammach. The "tasty" bit was, of course, untrue; it tasted like cardboard with a hint of radiator, some of which could be blamed on the tank water. And NaN was pretty doubtful about the "nutritious" as well; she had random pains and periods of dizziness and confusion and some thoroughly unpleasant *spots*, a combination of vitamin deficiencies, scurvy and pellagra and other ugly words, and space adaptation syndrome according to A(i)da, to which list NaN added stress and terminal boredom.

The coffin IV presumably helped with the vitamins, so she hooked it up when she was sleeping. Its levels were going down shockingly fast, however; there was some sort of feedback system, via the sensors in the chest strap, designed for maintaining a patient in a coma, not one who was alternately exercising and vigorously plotting the painful deaths of her many foes, not least the kidnappers, and the BengaTek RE-TAIn design team.

She'd done her plotting for that day, over breakfast; it was time for exercise. A(i)da's information on low gravity exercise was minimal, and heavy on the dedicated equipment, so NaN had developed her own program, which largely consisted of bouncing off the walls of the bridge. When she got going, she could do laps, floor to wall to ceiling and back around; centrifugal, artificial gravity, she explained to A(i)da, who seemed dubious. Music was a key element, too, maintenance of cadence,

and proper breath control, which meant top-of-her-lungs and A(i)da on sampled piano and harmonies and asides,

... we'll buy a talking Mynah,
 (he can have my job)
 that sings "Slow Boat to China"
 (or Mars)
 We'll make the wandering waves our home.
 (beats a storage crate)
 From the warm sun of June.
 (remember the inverse-square law?)
 To the big harvest Moon,
 (looks pretty tiny from here)
 Across the deep our hearts will roam.
 (deep space, that is *beep* NaN?)
 Shanghaied by moonlight,
 (*beep* NaN! *beep*)
 Just the two of us, aloooooone!

"Sheesh, babe, you were way off on that last bit," NaN added, and slammed into the ceiling, because A(i)da was beeping, and that could only mean

"You cracked it!"

"Key retrieved. Elapsed time: 156 days, 14 hours, 6 minutes and 44 seconds. Ship consoles active."

NaN bounced over to a chair, strapped herself in. The glow of the console, indicators and screens flashing, set her head swirling; she had a sudden, visceral sense of something there with her, alive, and on its heels a wave of loneliness, first time this whole trip, first time since third grade, really. She scrubbed a few itchy tears from her cheeks.

"Sorry, babe," to A(i)da, feeling strangely guilty on top of it all. "Stupid, stupid. Got to find some vitamins, get my head straight. So, um, were we right? Context destination, that is."

They *could* still be headed for the observatories at L2, in which case they only had six weeks left. But the ship had made a couple of automated corrections in the last few months, tiny jostles, compared to the suborbital flights NaN had taken, but heart-stopping out here, and consistent with the somewhat hybrid Mars route, rather than the almost perfectly efficient path to the Lagrange point. And anyway, what would a few hundred researchers want with two full shipping containers of oatmeal?

"Affirmative. The ship identifies itself as MarsCon E15."

NaN kicked the chair, braked with one hand on the ceiling, glowered at the glittering console below.

"Six more months."

"One hundred and eighty-four days, nine hours, two minutes until insertion into Mars Transfer Orbit."

Another one hundred and eighty-five days chopped out of her life, that was. Our Lady of Omissions would be ancient history, a cautionary tale told to misbehaving wannabes and kiddies. NaN kicked the chair, did a flip. "You got a manifest?"

"Affirmative."

"Damn it, babe, let's go shopping."

NaN sat up, halfway, and threw her arm up over her head, legacy of the coffin. But she was on the bridge, strapped to the wall; the coffin had finally run dry, the air going a few nights before the nutrient, in a panic of blaring alarms and a wedged hel-

met. The coffin's value had been more mental than physical in the last few months, anyway; supplied with the ship's manifest, which included the access codes for most of the containers, she'd found a crate of vitamins and a selection of packaged foods that would do a Reno casino buffet proud.

She'd found wine, too, plastic barrels of it. Bottles were too heavy, apparently, even for the slow boat; or maybe this wasn't the sort of wine that got bottled. If her cosy coffin was no longer a refuge, a empty barrel might substitute, or the emptying, and she'd been working dedicatedly at it. So she'd substituted the nausea and dizziness of space adaptation and poor nutrition for those of good old drunkenness. At least she had gotten rid of the spots, and some of the pain, and the fear that the wave of loneliness might crash down again and sweep her so far out she'd never come back.

Those were the sorts of dreams she'd been having; just now, she'd been on some creaking old sailing ship, the spray lashing sideways as she struggled through a tangle of rigging, shackled to other struggling souls, and a team of corporate suits shouting urgent, overlapping orders in meaningless marketspeak from the quarterdeck. She wasn't a cubemonkey, she'd shouted back, or some d00d kiddie they could offline with a lawyer and few chains; she was a hacker and a cracker, and she'd been crimped, dammit, shanghaied . . .

NaN blinked against the blur in her eyes and brain. "A(i)da," she said, "I'm an idiot." "Confirmed. As previously discussed, this continued abuse of alcohol is producing measurable deleterious effects on your psychological and physiological health."

"No, no, I mean, yeah, alright, but listen. I've spent a year now, wondering who wanted me off Earth, and why, and it just hasn't added up, and that's been driving me cruffy. But when they shanghaied sailors, it wasn't to get them out of San Francisco, it was to get them onto a ship and make them work. Or no, look, they put you on the slow boat to China to *get you to China*."

"Measurable deleterious effects," A(i)da repeated.

NaN hissed and fumbled the straps loose, floated over the console to stop with her nose against the now unshuttered window. "What I'm saying is, someone didn't want me off Earth. Someone wants me *on* Mars. And I think I know who it is."

NaN didn't do meetings. Our L. of O. worked strictly virtual and alone, the scene unseen, that was the rule. But NaN didn't do rules, either; and now and again she'd venture into realspace just to prove that she could. The mission was usually social engineering; when the hack was stalled, and voice and text messages just weren't hitting the mark, she'd go in realtime. More rarely, and reluctantly, she'd risk a face-to-face with someone in the scene, for an offline key exchange, or a sneakernet transfer. And once, just once, she'd faced a group, a Damn Convention it was, under cover of a much more public event. While the press were clustering wannabes and d00dz at the blackjack tables, a group of real names, wizards and legends all, met in a quiet bar to finalize the first interplanetary darknet. The excuse for the meet was key exchange, though NaN and others had argued that there was a sufficient web of trust to bootstrap the network. The real issue was that the new network cut across scenes, hacktivists and crypto-anarchists and privateers and bankers and infoterrorists, maybe some real terrorists, certainly some plain old crooks; there were interface issues at the cultural level, and a few of the organizers had insisted on an in-the-flesh session.

There'd been no "Hello, my name is" tags, of course, not even with handles, but everyone was engineering everyone else, making educated guesses, and there were a few gimmes. NaN, for one; the only woman there not leeching off a guy, and ever since she'd publicly flamed a famous cypherpunk who also happened to be a misogynistic bigot, Our Lady was known to be just that. And there was a hackivist whose day job was as a bloghead; a self-proclaimed expert on the human-tech interface, but, NaN had to ad-

mit, a pretty good hacker, and going after her sorts of targets: corporate databases, click trackers, face identification systems, anything thing that chipped away at people's privacy. His reasons were political, and hers were personal, but they came to the same end.

And then there was Leco. That wasn't even a handle; Leonardo 'Leco' Stirling Guaraná was the name he went by, cyberspace and otherwise. Son and heir to one of the most powerful of Mars's elite clans; a family with holdings in ice mining, farming, shipping, an almost feudal control over whole communities, and an outspoken aversion to influence, either political or cultural, from Earth. His physical arrival at the bar, strolling in wearing a five thousand dollar suit, had caused half the group to head toward the exit; he'd had to show his forged passport and travel documents to get everyone settled down again.

He was there not as a hacker or cracker; he was one of the organizers, though, with interests at either end. His family was supplying vital hardware and bandwidth up front, not just on Mars, but throughout the System. And they were committed to being users, and to covering much of the operational costs; the reality was, the families still needed to deal with Earth, but they were eager to do so out of sight of the corporations and governments they detested.

Afterward, as the clusterface was disintegrating into smaller discussions, Leco had carried a chair and a pair of beers over to where NaN and A(i)da were lurking. He'd done his homework; he knew so much about her exploits that she gave A(i)da the special poke that rotated her keys right then and there, while she smiled and nodded at the Martian.

He was fierce and passionate and darkly handsome, talking about his family's plans, and his own plans; the natural evolution of culture, a new trajectory, trajectories, actually, everyone on their own path. This meeting, the new net, it was the start of a revolution, and the people here the visionaries, the leaders, the first freedom fighters.

"But it can't happen here, on Earth," he said. "It's too deep down its own well, too heavy with history. The revolution might be starting here, today, but the battles, and the victories, will be out there, on Luna, in the Belt, and on Mars, leading the way. We need people like you out there, people who know how to hit the corporations where it hurts." He put his hand on her shoulder. "Whatever you need, money, equipment, assistants, we can get it for you."

He leaned forward, and smiled, his breath hot on her face, thick with beer and plastic, and said, "Come with me."

And NaN smiled her own dazzling smile, that she usually kept to herself, and put her beer down, and her hand on his, and said, "No," and got up and walked. Because he was, after all, wearing a suit.

There was an airlock directly off the bridge, a small one, for emergency evacuations, NaN suspected, largely because of the oversized button that said "Emergency Evacuation." The airlock was dark, and cold, and small enough she could wedge herself sideways. She'd tried sleeping there, a few times, but the view out the tiny window was too distracting; a sprawl of stars, individual and uncountable. She wasn't sleepy now, though, a bit drunk, perhaps, and jazzed on a bag of coffee beans she'd been chewing raw. "Jazzed," she thought, and beat a bebop pattern with her fingers, taptaptap on the emergency button; she'd levered up the protective cover, and the plastic of the button itself was smooth, and neither warm nor cool to the touch.

If she tapped too hard, just a little flam on the downbeat, and the system triggered, and sent her spiraling out the door in a swirl of air, would her body stay on course down that long low-energy trail to Mars? Was the atmosphere there thick enough that she would leave a bright streak going down, or would she just make a small crater somewhere and lie lost and exposed until the dust storms erased her? A(i)da might know, but

A(i)da was sitting on the console, and the inner airlock door was shut against her complaints. Alone and away had always been Our Lady of Omissions' trajectory. The only true freedom was anonymity, and true anonymity was an unachievable goal toward which to strive, against the enormous pressure to culturalize, incorporate, conform.

And now anonymity had been handed to her; someone else's doing, admittedly, but she could claim it for her own with a tap, no effort at all. Any other path would be a struggle against physics and fate and forces far greater than herself.

She huffed, her breath clouding the little porthole, and tapped the button once more, middle-finger, a crash of cymbals. "Omitted," she thought, was getting lame. And then she spun the inner hatch open, and kicked back into the bridge. A(i)da started up immediately. "NaN, your behavior has become indicative of a serious depressive—"

"Belay that, babe; we've got stuff to do. Open a project file."

"Project file . . . Affirmative. Title?"

"Payback, Our Lady thereof."

The shape loomed over her, huge-headed and alien in the bridge, *her* bridge, wrapped clumsy fingers around its own neck and wrenched. The helmet came off; a thin, pale face, hair likewise, eyes huge and twitchy in the wide-angle lens.

"It's not him. Plan B," NaN said, with a swallow; three months of planning, cracking crates for parts, navigating an unstable trajectory between the wine and the despair, and her kidnapper hadn't kept the appointment?

"Motion on the hold camera, two people," A(i)da replied.

"Let me see." A(i)da flicked her screen to the other camera: two spacesuited figures pulling themselves along a strut. They stopped at a familiar container, checked the markings, popped the door.

"Yo ho ho, no coincidence, that. Plan A after all. Keep an eye on those two, switch back to the bridge."

Just in time; the man on the bridge had already found the key jack, and was pulling out a tablet. Not an AID, thank you, or some funky new Mars device; it looked like a cheap Brazilian clone, a lightweight client, tethered via wireless and *not* designed for space use, and that confirmed it; this wasn't the official crew, here to pilot the transport into Low-Mars Orbit. The only question now was his tablet's OS, but if this guy was with Leco, no way was he running an Earther corpo-imperialistic system. He had wrestled one arm out of his suit to use the touch screen. NaN tried to read his finger motions, but the angle was bad, and the picture suddenly squished left as A(i)da split her screen. NaN bit down on a complaint; the hold camera showed crates floating, and the other two already emerging from the shipping container, with the coffin between them.

"Efficient little f— bridge cam!" and A(i)da switched fullscreen just as twitchy-eyes jacked in a thumbdrive and flicked the screen, a familiar gesture, and NaN said "That's BazOS 3. Do it!"

"Done."

Twitchy-eyes popped the thumb out, jacked it into the ship's console. What *would* have happened next, if NaN hadn't had her way with the console, was a confirmation of the key on the thumbdrive, and access to the ship's system. What *was* happening was a flashing alert reading:

[Drive Formatting Invalid. Help?]

Twitchy-eyes blinked, tapped the console screen. The help screen would be displaying:

[Drive unreadable. Please insert another drive, or STB connection.]

"Wait for it," NaN muttered. Twitchy reached for the thumbdrive, stopped, adjusted his mic instead.

"Uh, Leco? This is Stan. There's a problem with the key."

But Stan wasn't getting any help that way. The two emergency suits in the bridge cabinets were hacked and blasting out static on the standard suit frequencies, at a level that would drain their batteries in another few minutes; she'd turned them on last, once the clatter of the newcomers' docking had stopped, before diving for the emergency exit.

"Leco? Hey, can you hear . . ."

"Now," NaN said, and she could see the red glow of the new warning reflected in his eyes. What it said was:

[Unauthorized Access Detected: 60 seconds to console lock. Insert key or connect to override.]

and a countdown timer started, accompanied by a piercing beep.

"Shit," said Stan, and he yanked the thumbdrive, plugged it back into his tablet, frantically tapped at the screen.

"Do the air," NaN said, and A(i)da started cycling the fans, little pressure pulses at two cycles a second; *not* a relaxing sensation, that.

A(i)da split her screen again, briefly; the coffin crew was about halfway to the bridge airlock. "Yeah yeah," NaN said. "Dec the counter ten seconds . . . now!" Stan looked back up from his tablet, managed to lose what little color he had.

"Leco, dammit, I need help in here!" But all he was going to get that way was an earful of static. For a second he just froze there, mouth gaping, and NaN did the same; the whole attack relied on the mark not being a total loser. But no, he came out of it, started looking around; classic reaction, that hope for an answer lying in plain view, and look, look. . . .

"No, idiot, up here, on the console," NaN gritted. "Crap. A(i)da, set the counter back to fifteen secs, and up the alarm."

Stan spun back around to the console as the beeping went double time, and gasped, and reached over the camera to grab the cable that NaN had left coiled and casual on a monitor.

"Hah!" NaN said, and A(i)da replied with another split screen; the other two had the coffin lashed near the hold hatch, and were opening the outer airlock to the bridge.

Stan yanked his thumbdrive and plugged in the cable, fumbled the other end into the console jack.

"That's right, any port in a storm," NaN said, as Stan leaned over the console display; it would now be telling him

[Connection detected. Transfer key to abort lock.]

and his fingers danced over his tablet now, everything under control, the ship's system popping up on his desktop and all he had to do was authorize the connection and drop the keyfile onto the icon like a good monkey and . . .

[Access granted. Console active.]

the display would be telling him, and it was true, the console was online, the ship was his to control, and he was too busy shaking his head and letting out a sigh to notice the brief glitch on his tablet, as NaN's code inserted itself into his system.

The airlock door opened, as Stan struck a thoughtful, focused pose over the console; in control of the situation, was Stan. The others pulled their helmets; one was an angry-looking woman, worry lines across her brow and down her cheeks, and the other was Leco, with his dark skin, dark eyes, dark hair with its swirls of dust-devil red dye. NaN took a long breath in, a surge of conflicted chemicals spinning through her, and let it out again. The hack was still running, and realtime; there'd be plenty of time for reactions afterward.

"What's with the radio?" Leco demanded.

"Interference. May just be the shielding in here," Stan replied, with a wave of his tablet toward the metal walls.

"Huh," Leco replied. "Something's off. The hold is trashed; some sort of gritty brown stuff everywhere. And the coffin, it's on, seems like it's running, but the controls are wedged."

NaN had had her final revenge on the coffin display.

"Damn, is she. . .?" Stan started.

"No, no, the monitoring works, and her vitals look good," said the woman. "We just can't get to the menu, which means we can't unlock the damn thing."

"We can worry about that later, once it's on our ship and we're out of here," Leco said.

"Sounds like our cue, babe," NaN said to A(i)da. And then over the console speakers, she purred, "Oh, I'd worry about it now."

The three in the cabin spun to the console, and then looked down in perfect sync toward the coffin in the hold. NaN stifled a laugh; no need to let on about the camera.

"Oh dear, I hope you didn't already sign for the package; looks like your shipment's short a few items."

The woman cursed, gave the bridge a quick survey, and pulled the bag slung over her back around, started rummaging through it. Leco stepped toward the console.

"You can hear me, yeah?" he asked.

"Alas, alack, I can," NaN replied. "Is it time for the speech about Earth corpo-cultural imperialism, and how it's time for Mars to break free and fly its own orbit? Because, you know, since I last heard that one, I've learned a lot about orbital mechanics, and I'm not sure you've got your physics right."

Leco went a shade darker, and looked back at the woman. She'd pulled a gadget out of the bag, and was sweeping it around; thermal scanner, most likely. She shook her head at Leco. He gestured toward the airlock; the woman nodded, and put her helmet back on.

"NaN, I realize that this might all seem a bit abrupt . . ."

"If you can call fourteen months gone 'abrupt.'"

"You'd have wasted those fourteen months anyway, with that Our Lady of Omissions nonsense. So you annoy a handful of corporations, generate a few insurance claims. Have any of your hacks ever brought a company down, toppled a government, eliminated just one of the assholes who dictate their own tastes and misguided morals on the masses?"

Split screen: the woman was working her way down the hold, long sweeps with the scanner.

"It's a zero-sum game, NaN. We have to sweep away the old to make room for the new. And there's nowhere left to sweep the trash down on Earth, it's . . ."

NaN muted the audio. "He can keep this up for hours; good time for us to move."

"Affirmative, switching to wireless." NaN unplugged and drifted, one eye on the hold camera, and on Leco's fervent form. Two heart-pounding minutes later, they were resettled, and he was still going. She bumped the volume back up.

"... just some fantasy figure for fat, sweaty hacker boys, but a real hero, one of the elite, one of the few that step into the gap and seize destiny."

"Little dreams," NaN said. "Little dreams for little people. That guy there, Stan, is it? He one of your real heroes? Kind of . . . twitchy, isn't he?"

Stan actually looked hurt, poor thing, and she wasn't done with him yet.

"Good thing you're aiming low." Leco tried to interrupt, but she upped the speaker volume. "You think you're confronting people, but all you're doing is discarding them, replacing them. Trivial. Lame. *Changing* people, now that's hard. You can't do that with speeches and slingshots, not at first, anyway. You have to start with doubt. My hacks, maybe all they create are a few sleepless nights, some anxious meetings, a few questions, but once you've got them doubting, and uncertain about what they know, then they're yours."

Pretty good, she thought, Leco was steaming, and the timing was on. The airlock swung open, and Ms. Angry came through, with a shake of her head at Leco. He grimaced back, opened his mouth, and shut it again, eyebrows raised, with a look toward the window.

"You're outside, aren't you? Think you're a clever girl, huh? No way you've got a real EVA rig; you're still in that beat up old emergency suit, I bet. How much air you got? All we have to do is wait here; another twenty minutes and you'll be promising us anything we want to let you in."

"I've got extra air bottles, from the suits in the bridge cabinets. Check for yourself; I emptied out the rack. I can last out here about twelve hours, I reckon; tell me, how long before the official crew gets here? Can't wait to hear you explain what exactly you're doing on their ship."

Angry Woman and Stan exchanged glances, as Leco grabbed the edge of the console and snarled, "So we come out there and drag you in. You're in our space now, Earther; we were wearing suits when you were still in diapers."

"Yeah? No wonder you're still crapping yourself. You gave me fourteen months to learn what I didn't know, and I've figured this ship inside and out. You want to play tag, little boy, you come on ahead."

Leco's face filled the screen, purple and sweat-streaked; any second now he was going to see the camera.

"You stupid dirtpounding geek, we have sensors on our ship that could find you

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NaN nodded to herself; she'd figured his reason, under all the revolutionary bluster, would be personal, though she doubted he really understood that himself. She'd been thinking a lot about unconsidered motivations, lately, and where they could land a person.

"Ooh, sensors, sounds pretty technical. Who's gonna do that for you? Stan there? Hmm. You sure he knows how to work that thing?"

And Stan, who'd been having a bad day, pulled up his tablet and tapped, fingers furious on the screen.

There was a loud clunk.

"Here's a couple more things we learned about spaceships in the last fourteen months," NaN said. "They pretty much fly themselves. They use cheap-ass off-the-shelf security. And their airlocks all have manual overrides."

Stan was still tapping, brows down. "The remote app is acting weird; it's not accepting the ship key. What's it mean, 'Not a Number'?"

Angry Woman spat another curse, and dove for the window. "Those were the docking latches," she said. "Our ship . . ."

Leco had found the camera. He leaned in and whispered a few personal promises to NaN; later, during the trial, his lawyers would try to have the transcript omitted, but would be overruled.

NaN propped A(i)da in what seemed to be a pure titanium cup holder. Slick ship, this was, Mars-built, Guaraná family logos, and Leco's name in platinum on the airlock door, just above the manual override handle; she'd used it as a target during the terrifying leap between ships. Solid design work in the bridge, though, if a bit gaudy; everything clearly labelled and within reach. Once she had the access key, courtesy of Stan and his attempt to log in to the ship remotely via her own software, a huge central display lighted up, clear and concise, right down to the arrow icon labeled:

[Initiate Nav Segment: "return course"]

Engines thrummed below her, a real sense of up and down for the first time in a year and a half. MarsCon E15 slid backward out of view. The display updated, colored tracks tracing graceful trajectories, and

[Destination Phobos Station]

"Sheesh, babe, we've got an hour to kill."

"Fifty-six minutes thirty-two seconds from course engage," A(i)da said. "That should be sufficient time to complete our interrupted game of *go*."

"Nah, I'm going to quit while I'm ahead. For, like, the next ten years."

"Position analysis suggests that I will win by nine stones."

"You're not accounting for sheer genius, babe. It's a common mistake," she added, with a glance at the display; MarsCon E15 was a shrinking dot. "Open a new project file: 'Mars: At Which Our Lady's Triumphant Arrival.' A shower, first, and a pizza with everything, and I mean everything. And then a little video editing, I'm thinking, before the press conference. Hmm, better start arranging that. Set us up a message to every tube channel and news site on Mars."

"Affirmative. Note it will take approximately sixty-three minutes to bounce the email through our usual anonymization route, including speed of light roundtrip to Earth. Unless you wish to trust the Guaraná family proxies on Mars. We may still have a 'NaN' account there."

"Heck, no," NaN said, and stretched her arms wide. "Route it direct. And sign it 'Anna Alvarez Martin, of Reno, Nevada.' A(i)da my dear, we're going public." ○

TRADE OF QUEENS

By Charles Stross

Tor, \$24.99 (hc)

ISBN: 978-0-7653-5590-4

This is the sixth in Stross's Merchants' War series, and the concluding volume of the story line begun in *The Family Trade*. The series has been described, half-seriously, as "Amber with economics," noting its resemblance to Roger Zelazny's long-running saga of dynastic backstabbing among members of a family that can move between alternate worlds, and the primacy of economic elements in the problems addressed by Stross's protagonists.

Stross left the reader with a major cliffhanger at the end of the previous volume—I'm not going to spoil the fun (or agony, as some would see it) for anyone who hasn't read it. Suffice it to say that, at the beginning of this volume, Stross keeps the suspense going for a good while longer before letting the shoe drop—which he does with all the fireworks at his disposal. Even so, this book's about finishing up loose ends, although it looks for a while as if some of them are going to be pretty hard for him to tie together.

Most of the action still centers on Miriam Beckstein, the Boston-based technojournalist who discovered at the beginning of the series that she was part of the royal family in a medieval society in a parallel North America. Having survived the attempts of various factions to either manipulate or eliminate her, she is now attempting to forge a life in another parallel world that has just undergone a revolution. But she's jumped from one frying pan to another; other members of her extended family are already there, ready to cut deals with the new government. And Miriam's friends may

be well placed in the new regime, but they aren't necessarily the ones with the lion's share of power.

In the Grunmarkt, the medieval society where Miriam's family has ruled for so long, the power struggles have also reached crisis level. Thanks to a conservative faction that opposed any attempts to shake up the ruling hierarchy or introduce any hint of a meritocracy, a crippling civil war has killed off a significant number of the worldwalkers—those who, like Miriam, can travel between the parallel worlds. Some have fled with Miriam to New Britain, the revolutionary world. Others have explored and found still other new worlds—all different, some possibly inhabitable. At least one world they've found is far more advanced, technologically, than even twenty-first century America. But the immediate problem in the Grunmarkt is surviving the blowup Miriam and her friends can see on the horizon.

Meanwhile, in our world, the existence of alternate worlds has come to the attention of the US government, which is eager to exploit their untapped mineral deposits and other natural resources. But the Grunmarkt isn't eager to be exploited, and resents what it sees as American interference in its affairs. Worldwalkers can penetrate into places apparently safe, and their leaders don't especially care who gets hurt. As a result, things are about to go extremely wrong, and the danger level has gone off the charts for everyone who knows anything about the alternate worlds. Mike Fleming, a former DEA agent who learned Miriam's secrets before falling out of favor with his bosses, is one of those trying to do damage control. And of course nobody believes him until it's too late—at which point he's more con-

cerned about staying alive than anything else.

The forward momentum of the plotlines is remarkable; Stross juggles three worlds, each in crisis, with a large cast of characters who all have urgent agendas. He also manages to dispense rough fictional justice to a couple of real-life personages who've played a role in earlier volumes—probably in a manner that'll alienate readers of a certain political bent—but he's enough of a realist to know it won't change things; their replacements are, if anything, even worse. He also throws around a few additional bombshells in the political plot developing in our world, with consequences that are likely to resonate widely in future narratives set in this fictional universe.

By the end, the immediate plotlines have been put to rest—and there's the promise of more to come, any time Stross wants to return to this, his most effective and complex piece of world-building.

If you've been waiting for the end of the series to finish it, here you are. And if you haven't started it, you can now do so without having to wait a year or more for the next installment. For my money, it's one of the best reads in years.

THE BETTER TO HOLD YOU

By Alisa Sheckley

Del Rey, \$ 6.99 (mm)

ISBN: 987-0-345-50587-3

A paranormal romance by the daughter of one of science fiction's finest writers, Robert Sheckley. And although nobody should come to this expecting the younger Sheckley to be a direct inheritor of her father's inimitable approach to storytelling, there are some off-the-wall touches and bits of straight-faced humor that the old man would surely have enjoyed.

Sheckley's protagonist is Abra Barrow, a veterinarian living in New York and married to a travel writer, Hunter, whose recent journey to Romania to research a book on werewolves seems to have left him oddly changed. For one thing, his

sexual appetite is much stronger than it used to be—and his idea of fun is a lot rougher. Scarier, there are hints that he's seeing someone besides his wife.

At the same time, weird things are also happening on the job. Abra's boss is researching a gene that he believes is related to lycanthropy. And just as the book begins, a shabby-looking fellow named Red comes in to rescue a wolf-like dog that has been found on the streets. The plot takes several unfortunate turns, and in an attempt to save a marriage that looks very much as if it's falling apart, Abra agrees to move with Hunter to his family home, an isolated mansion in an upstate New York town called Northside.

The move upstate brings them into a very different community from what they've known in the city. First of all, they're in an isolated house, with a good drive to get into town—and when they get there, the population is considerably less, uh, urbane. In fact, the main locations we get to know are a redneck bar and an isolated trailer community—the latter, as it happens, the home of Red, the shabby stranger Abra met in the city.

But the move has done nothing to solve the main problems. Abra has no chance of finding suitable work in the local community, so she's at complete loose ends. Meanwhile, Hunter seems to be going off the deep end. And there are signs that some kind of wild animal is hunting in their neighborhood.

Sheckley plays the hints of lycanthropy for all they're worth, while doing a good job of keeping the romantic plot moving. There's probably a good bit more explicit sex than is typical of genre fantasy or horror, and a good bit more introspection on the part of the narrator. But the plot tension is well handled, and at least for this reader, the story develops in uncliché ways. Abra ends up with a choice between two men, both dangerous in their way, and while her final choice may not be a complete surprise, the resolution is satisfying.

As a bonus, there's also a cast of wacked-out minor characters that would have been the joy of many a Robert Sheckley novel, and his daughter gives them a good workout. Abra's woo-woo mother, a former movie star who lives in Pleasantville with a pack of yippy little dogs, is the prize, but her various assistants and boyfriends aren't far behind. Likewise, Abra's various colleagues at the veterinary lab where she works at the beginning of the book are freshly observed and well drawn—with just enough of a humorous edge.

Sheckley has a definite flair for comic portraiture, the ability to pull surprises out of a relatively conventional genre plot, and a good eye for setting. Even if your usual reading fare is a good distance from the paranormal subgenre, it's worth taking a step across genre lines (a walk on the wild side, if you will) to get a look at this fresh new talent. You may just decide you like the change of scenery and settle in for a while.

SHAMBLING TOWARD HIROSHIMA

By James Morrow

Tachyon, \$14.95 (tp)

ISBN: 978-1-982391-84-1

The ever-reliable Morrow combines horror film history and the Manhattan Project for a scathing satire that hits many targets despite checking in at novella length.

The narrator is a veteran horror film actor, Syms Thorley, a Lon Chaney-like studio regular in the golden era of schlock monster movies. As we meet him, he is contemplating suicide after receiving a lifetime achievement award from a Baltimore media convention for his role as the monster in a series of films starring the giant reptilian monster Gorgantis—clearly parallel to the Godzilla thrillers. The novella is presented as his suicide note. Just why he wants to end it all, at a point many might see as a triumph, emerges as the story unfolds.

Morrow, characteristically, has a number of satirical targets in his viewfinder.

One, the broadest, is the Hollywood studio system, and all the pumped-up egos surrounding it—his narrator being a prime example. A secondary target is media fandom itself, which he gives the kind of affectionate roasting that only a fellow devotee can really manage. But the big game is the atomic bomb, and the entire military enterprise that went into its creation, deployment, and the later nuclear arms race that still hangs over the future of civilization in hot spots all across the globe.

After setting the scene from his self-imposed isolation in a Baltimore hotel room, Thorley flashes back to the latter stages of World War II, when he was filming one of his monster epics. He is approached by two men who identify themselves as naval officers, and given a choice: work with them on a super-secret project, or get drafted. No fool, he accepts the job offer—not without a healthy dose of sarcastic commentary.

Thorley goes for the job interview with the Knickerbocker Project, and passes the security check despite an impulse to play the wise guy to everyone around him. The job, it turns out, is to impersonate a gigantic reptile; the Navy has developed a group of such mutated lizards, but unfortunately they can only be controlled if they're kept sedated. It plans to use Thorley, in costume, smashing a model city, to threaten the Japanese in hopes of precipitating a surrender. (It is already clear that the cost of an invasion of the Japanese mainland will be more than America dares to pay.) And the Navy is in a hurry to complete its project; word has it that if the lizards don't pan out, the Army has something of its own in the plans. Whatever the cost, the Navy doesn't want to lose the race for the war-ending weapon.

Morrow throws enough obstacles in Thorley's way—a jealous rival actor, problems with the elaborate lizard costume, special effects that become a little *too* special—to give the actor plenty to kvetch about, and to throw some suspense into the plot. There are enough

surprises in the latter stages of the plot that I won't give them away except to note that almost nothing comes out as planned. Needless to say, the satiric points are driven home with Morrow's characteristic glee and dark humor—and not a little poignancy in the final pages.

I've long been an admirer of Morrow's satiric edge and outrageous inventiveness, and it's clear that he's kept his skill nicely honed over the years. Highly recommended; and incidentally still another proof that some of the best work in the field is now being published by the smaller presses.

FLESH AND FIRE

By Laura Anne Gilman

Pocket, \$26.00 (hc)

ISBN: 978-1-4391-0141-4

A fantasy based on magical wine, set in a medieval-like world—and the start of a series, the Vineart Wars.

Gilman chooses as her protagonist Jerzy, a slave boy working in a vineyard. Like all slaves in this world, he is of unknown origin—bought by his master from traveling slavers who make no attempt to keep records of where they picked up their wares. During the grape harvest, he reveals an unexpected awareness of the quality of the wine—and comes to the attention of Malech, a master vintner with life and death power over his workers.

At first, the book follows the familiar pattern of an apprentice wizard's training, a theme as old as fantasy. Jerzy learns the basics of his master's trade, with side lessons in combat, civilized manners, and other matters that were beyond what was expected of a field slave. Gilman throws in the added fun of a completely fresh body of esoteric knowledge, the ancient and highly evolved technology of wine-making. This, along with a novel religion underlying the magic, gives the book an energy that many more generic medieval societies don't ever achieve.

The plot picks up momentum with the

arrival of a threat from unknown regions—a series of attacks on vinearts and their allies. We get glimpses of the threat in a prefatory chapter, and in brief jumps away from Jerzy's training to the island kingdom of Atakus, where an unexpected murder throws the succession to the throne into chaos—and forces drastic political choices that threaten all the island's trading partners.

The trouble grows with the disappearance of ships at sea and strange grubs and rots attacking the grapes in widely separated vineyards. But it is the arrival of sea monsters preying on coastal villages that convinces Vineart Malech that something unprecedented is afoot—requiring a response that breaks with precedent. Jerzy, for his part, gets an up-close encounter with one of the monsters—and we get a hint that his powers (especially in the unorthodox way he puts them to work) may be greater than one would expect from an apprentice of less than a year's experience.

Malech sends Jerzy to the city of Alleppan to study with another wine-maker, Giordan—a radical departure from tradition, which requires each wineart to remain on his own land, train his own apprentices, and keep his knowledge close. The idea is to keep any one wizard from becoming too powerful. While he is there, Malech wants Jerzy to keep his eyes open for anything that may give a hint to the source of the problems sweeping their world.

After an uncomfortable sea voyage, Jerzy's first experience of the city, at the palace of the all-powerful mayor, is disorienting. He has no idea how to deal with the most ordinary daily maneuverings of a court, and he finds his new mentor's ways confusing in their differences from the life he is used to. For one thing, Vineart Giordan's vines are on property owned by the mayor, and he works them with hired labor, not slaves. And because the custom is for new vinearts to be recruited from the master's slaves, Giordan has never had an apprentice.

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fax (203/854-5962); or mail (6 Prowitt St., Norwalk, CT 06855).

Jerzy also has problems figuring out how to do the spying that Malech expects of him; completely guileless, he is over his head in the complex society of a large city. But he quickly finds an ally—and a friend—in an apprentice trader, Ao, who tries to teach him subtlety and subterfuge. Eventually, of course, things go sour—the political situation is worse than anyone has guessed. But the book ends with Jerzy on the way to another stage in his apprenticeship—and deeper understanding of the crisis overtaking his world.

This one's a bit of a departure for Gilman, whose previous original work has been stylish urban fantasy with a strong romantic flavor. Here, while there are hints that Jerzy may eventually hook up with one of the woman characters, any sexual tension is definitely kept under wraps. The new series is definitely a step up in ambition, and has a good chance to appeal to a larger audience than the "Retrievers" books that have been her most notable work so far. ○

SF CONVENTIONAL CALENDAR

If you can't get to the World SF Convention in Australia, I look forward to seeing you at the Raleigh NAS-FiC. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of con(vention)s, a sample of SF folksongs, and info on fanzines and clubs, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22-L, Newark NJ 07102. The hot line is (973) 242-5999. If a machine answers (with a list of the week's cons), leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con 5 months out. Look for me at cons behind the Filthy Pierre badge, playing a musical keyboard. —Erwin S. Strauss

JUNE 2010

- 23-27—Origins. For info, write: 280 N. High #230, Columbus OH 43215. Or phone: (614) 255-4500 (10 am to 10 pm, not collect). (Web) originsgamefair.com. (E-mail) info@originsgamefair.com. Con will be held in: Columbus OH (if city omitted, same as in address) at the Convention Center. No guests announced. The year's biggest gaming con; much fantasy gaming.
- 24-27—MidWestCon. (513) 922-3234. cfq.org. Doubletree, Sharonville (Cincinnati) OH. The original low-key relax-a-con.
- 24-27—PortCon. portconmaine.com. Wyndham Airport Hotel, Portland ME. Anime and gaming.
- 25-27—ApolloCon. apollocon.org. Houston TX. Artist Keith Thompson, fan Pat Virzi. SF, fantasy and horror.
- 25-27—Hall of Fame Weekend. locusmag.com. SF Hall of Fame, Seattle WA. Connie Willis, Gregory Frost. Locus awards.
- 25-27—ConTerpoint. conterpoint.org. Chase Suite Hotel, Rockville MD (near DC). Ed & MEW. SF/fantasy folksinging.
- 25-27—Deadly Ink. deadlyink.com. Parsippany NJ. Gillian Roberts, C. Solimini. "Where Writing is Murder." Mysteries.

JULY 2010

- 1-4—WesterCon. westercon63.org. Hilton, Pasadena CA. Rudy Rucker, John Berry, Marc Schirmeister. West's annual con.
- 1-4—ConVergence. (651) 647-3487. convergence-con.org. Sheraton, Bloomington (Minneapolis) MN. SF and fantasy.
- 2-4—InConJunction. inconjuction.org. Marriott East, Indianapolis IN. Ed Beard Jr., A. & K. Looney. SF/fantasy literature.
- 2-4—GrangeCon. grangecon.org. Eden Resort Inn and Suites, Lancaster PA. Low-key relax-a-con.
- 8-11—ReaderCon, Box 65, Watertown MA 02471. readercon.org. Marriott, Burlington (Boston) MA. N. Hopkinson, C. Stross.
- 8-11—GateCon. (+44 870) 811-2084. gatecon.com. Sheraton Wall Centre, Vancouver BC. StarGate.
- 9-11—Shore Leave, Box 6809, Towson MD 21285. (410) 496-4456. shore-leave.com. Marriott, Hunt Valley MD. K. Sorbo.
- 9-11—G-Fest, 530 Willow Cres., Steinbach MB R5G 0K1. (630) 551-0394. g-fan.com. Rosemont IL. Godzilla/Japanese SF.
- 9-11—ConnectiCon, 705 N. Mountain Rd., Box B-11, #B115, Newington CT 06111. connecticon.org. Hartford CT. Comics.
- 15-18—Infinitus. infinitus2010.org. Loew's Royal Pacific, Portofino Bay and Hard Rock Hotels, Orlando FL. Harry Potter.
- 16-18—MythCon. mythsoc.org. Southern Methodist Univ., Houston TX. High fantasy (Tolkien, Lewis, Williams, etc.).
- 17—AniMiniTime. animinitime.org. Delta Beausejour, Moncton NB. An anime and gaming mini-con in a maritime province.
- 17-18—TFCon. tfcon.ca. Doubletree International Plaza, Toronto ON. For fans of the Transformers toys, movies, etc.
- 23-25—WinkieCon. ozclub.org. Asilomar CA. Int'l. Wizard of Oz Club celebrates centennial of "The Emerald City of Oz".
- 30-Aug. 1—PulpFest, c/o 1272 Cheatham Way, Bellbrook OH 45305. pulpfest.com. Columbus OH. Pulp magazines.

AUGUST 2010

- 5-8—ReConStruction, Box 31706, Raleigh NC 27612. reconstructionstf.org. The North American SF Convention. \$110.
- 5-8—GenCon, 120 Lakeside Ave. #100, Seattle WA 98122. (206) 957-3976. gencon.com. Indianapolis IN. Big gaming con.
- 7-8—Japan National Con. token10.net. Hunabori (Tokyo) Japan. SF and fantasy; much anime and manga.
- 13-15—Philip K. Dick Festival. philipkdickfestival.com. pink-beam@hotmail.com. "In the foothills of the Rockies."
- 20-22—PiCon, Box 400, Sunderland MA 01375. pi-con.org. Enfield CT (Springfield/Hartford). Sawyer, Balder, H. Carey.
- 27-29—ConText, c/o FANACO, Box 163391, Columbus OH 43216. contextstf.org. Buckell, Massie. Written SF and fantasy.
- 27-29—BuboniCon, Box 37257, Albuquerque NM 87176. (505) 266-8905. bubonicon.com. Peter David. SF and fantasy.

SEPTEMBER 2010

- 2-6—Aussiecon 4, GPO Box 1212, Melbourne VIC 3001, Australia. aussiecon4.org.au. World SF Convention. US\$225.

AUGUST 2011

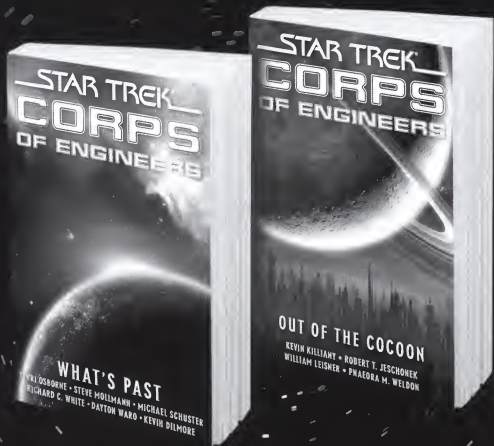
- 17-21—RenoVation, Box 13278, Portland OR 97213. rcfi.org. Reno NV. Asher, Brown, Powers, Vallejo. WorldCon. \$160.

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